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ABSTRACT

The purpose of this practicum was to develop a bilingual management system to enable bilingual teachers to monitor individual students' performance in the bilingual program. This required: (1) revising the kindergarten thru sixth grade student performance objectives; (2) developing kindergarten thru sixth grade criterion-referenced tests and mastery tests in English, Spanish and/or Portuguese for language arts-reading, mathematics, second language acquisition and multicultural social studies; and (3) developing student answer sheets and individual and class profiles. This report describes, in detail, the problem solving procedures, activities and strategies used in revising, developing and implementing the Bilingual Management System within the Hayward Unified School District. It should serve as a model for other bilingual programs interested in adopting a bilingual learning management system. (Author/CLK)

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Revision, Development and Implementation of a Bilingual Evaluation Management System

by Ronald L. Sousa[1]

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Submitted in partial fulfillment of the requirements of the National Ed.D. Program for Educational Leaders, Nova University

Two Year Individual Practicum
San Francisco Bay Area Cluster
Submitted: April 15, 1977

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ABSTRACT

The purpose of this practicum was to develop a bilingual management system to enable bilingual teachers to monitor individual students' performance in the bilingual program. This required:

- revising the kindergarten thru sixth grade student performance objectives
- developing kindergarten thru sixth grade criterion reference tests and mastery tests in English, Spanish and/or Portuguese for language arts-reading, mathematics, second language acquisition and multicultural social studies
- developing student answer sheets and individual and class profiles.

This report describes, in detail, the problem solving procedures, activities and strategies used in revising, developing and implementing the Bilingual Management System within the Hayward Unified School District. It should serve as a model for other bilingual programs interested in adopting a bilingual learning management system.

DESCRIPTORS: Bilingual learning-management systems; bilingual program evaluations; bilingual student performance objectives; bilingual (Spanish/English, Portuguese/English) Criterion Reference Tests; bilingual

(Spanish/English, Portuguese/English) Mastery Tests; classroom monitoring systems; Bilingual Multicultural Education.

INTRODUCTION

This practicum reports the major solution procedures utilized to develop a kindergarten thru sixth grade Bilingual Evaluation Management System, in English, Spanish and Portuguese. The report is divided into five major categories:

1. Identifying the Problem - this section includes a summary of the need for such a system required by state and federal regulations, and a review of the current literature on bilingual education.
2. Procedures for the Revision, Development, and Implementation of a Bilingual Management System - this section is the major body of the practicum report. It provides the major goals of the Bilingual Management System, as well as a description of the strategies used for revising, developing and implementing the Bilingual Management System. The design focuses on nine (9) specific practicum objectives. It begins with "how" and "why" the system was developed, who assisted, when it was done, and the preliminary outcome of its use.
3. Measurement and Evaluation - the evaluation design which is tied directly to the practicum's objectives is explained in this section. Each objective is repeated and a detailed report on how each was met is presented. Additionally, a jury

of bilingual education specialists was enlisted to critique the system. Its comments are included.

4. Dissemination or Further Application - a discussion of alternatives for the Bilingual Management System's further use is contained here. It describes the possible adaptability to other district programs, and serves as a ready reference to other bilingual programs interested in adapting a bilingual learning management system. The developed system also could serve as a model for similar systems at the secondary level.

5. Appendices - this last section is divided into two sections: 1) volume I appendices contain miscellaneous support information which back up many of the items referred to in the report, 2) volumes II, III, and IV appendices present the completed Bilingual Management System. The report has purposefully been designed in this way for easy reference. Those wishing to peruse the Bilingual Management System may do so without having to leaf thru a lengthy complicated report.

IDENTIFYING THE PROBLEM

Hayward Unified School District has a well established kindergarten through sixth grade Bilingual Multicultural Education Program in Spanish-English and Portuguese-English. Approximately 900 students are affected by the program located in nine (9) elementary schools. Federal and State bilingual funding sources have recently tightened up their evaluation requirements and are requesting evaluation designs to include provisions for assessing non-English students and limited-English students' progress in achieving the program's objectives in the students' dominant language, and in English.

Regulations also stipulate the development of longitudinal studies to monitor students' progress throughout the program. In addition, the program had to postulate what the students' performance might have been in the absence of participating in the bilingual program.[1]

Since there is a lack of adequate standardized achievement instruments to assess non-English performance in reading or other subject areas, a special problem has been created. State and Federal bilingual education funding sources recognized this as a deficiency. However, Congress and state legislatures require "hard test data" to justify

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[1] Department of Health, Education and Welfare, Office of Education, Bilingual Education, Federal Register, Vol. 41, No. 69, April 8, 1976.

additional expenses for bilingual programs.

In the past, districts such as Hayward Unified, have administered standardized (English language) achievement tests to all students in bilingual programs. Obviously, by continuing this practice, non-English or limited-English speaking students will be penalized since "true progress" cannot be measured. Short-sighted educators will continue labeling such students as "dumb," "problem children," and "low achievers." Few teachers are able to trace student failure to the language utilized in instruction and in testing.

Criterion reference tests are becoming a frequently used method of evaluation and assessment of bilingual programs. Criterion reference tests are designed to assess the child's mastery of a given instructional objective. As a consequence many different systems assessing individualized, diagnostic, prescriptive instruction have been developed. These learning management systems provide teachers with long lists of objectives and criterion reference tests to assess each objective. Textbook companies "jumped on the bandwagon" and developed criterion reference tests for their material (objectives included.) Slowly, United States publishers of Spanish reading materials have developed criterion reference tests. However, no tests have been developed for Portuguese by publishers.

In Hayward, monitoring of criterion reference tests has been accomplished by PIRAMID (Project Individual Reading and Mathematics Inter-District), a learning management system.

PIRAMID is complicated, detailed and time consuming and does not lend itself to systematic analysis of program requirements of bilingual education. The PIRAMID System, concentrating solely on reading, and mathematics in English, is being used in the district's categorically funded schools. However, each school has modified, revised, or deleted portions of the system to meet its individual pupils' needs. As a result, it is exceedingly difficult to use the system and still develop a consistent evaluation plan and use PIRAMID as an instructional management system.

State and Federal Regulations Governing Bilingual Program Evaluations

The following summary of State and Federal regulations demonstrate the requirement of individual pupil assessment in his/her dominant language in reading, language arts, mathematics, and multicultural social studies.

The first federal regulations for ESEA, Title VII stipulate that participating students be tested in English and in the "X" language. A description of measurement instruments to be used in evaluating the performance of participants in the program; the rationale for selecting these instruments, and procedures to be used must be provided. In addition, provisions were to be made for reporting pre-test and post-test results for all participating students using mean scores, standard deviations, and appropriate tests of statistical significance.[2]

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[2] Department of Health, Education and Welfare, Office of Education, Bilingual Education, Federal Register, Volume 41, No. 114, June 11, 1976.

The California Bilingual Education Act of 1972, specifies that:

> "At the beginning of each school year, the district shall evaluate each child to be placed in a bilingual program. His strengths and weaknesses in English and in the second language of instruction shall be assessed. At least annually, there shall be submitted to the Department of Education an evaluation of the children's progress, including, but not limited to, reading comprehension and speaking skills, in English and the second language of instruction."[3]

Early childhood education programs in California are designed to encourage the restructuring of programs from kindergarten thru third grade. The purpose of this restructuring is to guarantee that children completing grade three will have attained skills in language development, reading, and mathematics to ensure continued success in future educational experiences. To monitor accomplishment of stated goals, school districts are required to establish an evaluation system to accurately assess each pupil's progress as well as the program's results.

The implementing procedures and activities should provide data to support valid conclusions related to pupil progress in the following areas:

- Kindergarten language development and readiness skills in reading and mathematics.
- Competence in primary language development, reading and mathematics.
- General cognitive skills.

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[3]California Education Code, sec. 5761.8 Chapter 5.7, the Bilingual Education Act of 1972, (Chapter 5.7 added by Stats. 1972, Chapter 1258), p. 338.

. Affective development.

. Psychomotor development.[4]

"The Consolidated Evaluation Report for Multifunded Educational Programs" (Form E-127P), for ESEA Title I, Disadvantaged, Early Childhood Education and AB2284, the Bilingual Education Act of 1972, requires test data reported by three levels of English language fluency identified at the beginning of the school year (i.e., fluent English-speaking, limited-English speaking, and non-English speaking participants.)[5]

The Chacon-Moscone Bilingual Bicultural Education Act of 1976, (AB1329) states that,

> "At the beginning of each school year, the district shall assess each limited-English speaking pupil. The pupils' achievement in comprehending, reading, and writing English and, to the extent assessment instruments are available, the second language of instruction shall be assessed. Pre-testing of basic skills for pupil participants shall be conducted at the beginning of each school year, and post-testing of the basic skills for pupil participants shall be conducted at the end of each school year. At least annually, there shall be submitted to the Department of Education an evaluation of pupil progress for every program which has been approved pursuant to this chapter. The evaluation report shall identify variables, including other programs, which may have affected pupil academic achievement. It shall also include, but not limited to, reading comprehension and speaking skills, in English, and to the extent assessment

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[4]Early Childhood Education, Recommendations for Program Implementation, California State Department of Education, Wilson Riles, Superintendent of Public Instruction, Sacramento, 1974, p. 7.

[5]Manual of Instructions for Completing the Consolidated Evaluation Report for Multifunded Educational Programs (For E-127P), California State Department of Education, Wilson Riles, Superintendent of Public Instruction, 1976, p. 7.

instruments are available, in the primary language."[6]

The "Task Force Findings Specifying Remedies Available for Eliminating Past Educational Practices Ruled Unlawful under Lau v. Nichols," require identification of the students' primary or home language as the first step in the required plan submitted by a non-complying district. The assessment must be conducted by persons speaking and understanding the necessary language(s). The district must then assess the degree of linguistic function or ability of the student(s).

The second part of the plan must describe the diagnostic/prescriptive measures to be used to identify the nature and extent of each student's educational needs. Then it is necessary to prescribe a bilingual educational program utilizing the most effective teaching style and assessment and evaluation techniques to satisfy the diagnosed educational needs.[7]

Review of the Literature

Much has been written about bilingual-bicultural education, but little has been accomplished in developing bilingual

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[6] California Education Code, Chapter 5.76, the Chacon-Moscone Bilingual Bicultural Education Act of 1976, Ch. 978, pp. 8-9.

[7] Task Force Findings Specifying Remedies Available for Eliminating Past Educational Practices Ruled Unlawful Under Lau v. Nichols, Department of Health, Education and Welfare, Office of the Secretary, Washington, D.C.

evaluation instruments or classroom management systems. The U.S. Commission on Civil Rights publication, "A Better Chance to Learn: Bilingual Bicultural Education"[8] is a lengthy overview of research on bilingualism, bilingual-bicultural education, bilingual education, basic designs, instruction, teachers and teacher training, student grouping, curriculum content and materials, and parent and community participation. Of the 254 pages, only five (5) pages are devoted to process evaluation, outcome evaluation and evaluation instruments. Process evaluation is viewed as essential both as an interim assessment of student performance as well as an assessment of the program actually being implemented. Interim evaluations of student progress in language abilities, subject-matter mastery, and attitudes are necessary to determine whether interim program objectives are being met. Formal testing instruments are suggested, yet none are recommended. The authors maintain the evaluation process can be utilized for diagnosing individual student needs.

The U. S. Commission on Civil Rights further reports much of the criticism of bilingual-bicultural education is the result of lack of data concerning student performance or the presence of data from inadequate instruments, designed for monolingual English-speaking children. Judgements concerning the success of bilingual-bicultural education have often been based solely on the childrens' progress in English.

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[8] A Better Chance to Learn: Bilingual-Bicultural Education, U.S. Commission on Civil Rights, Clearinghouse Publication 51, May, 1975, pp. 120-121.

Children, in bilingual-bicultural programs, initially spend more time in their native language, since they receive content area instruction in their native language. Although, oral English language skills are developed immediately, English reading skills are developed later than in a monolingual program. In a bilingual-bicultural program, children must first understand and speak English before learning to read it. Reading is first developed in the native language before English is introduced. For this reason non-English and limited-English speaking students in a bilingual-bicultural program cannot be assessed for content area achievement through English-only instruments. The authors[9] maintain, there is a need for developing appropriate local instruments which measure content area achievement in the students' native language. These tests should have a minimum of cultural or socio-economic bias. Comprehensive native and English-language assessment instruments are desperately needed to measure bilingual skills development.

In 1974, the California State Department of Education published, "A Framework for Bilingual-Bicultural Education and English as a Second Language Education for Elementary and Secondary Schools." The evaluation section calls for continuous assessment and evaluation of pupil growth and development through academic achievement, (language proficiency in both home and secondary languages), concept development (understanding and knowledge in all subject matter taught), and

[9] Ibid., pp. 129-131.

attitudinal growth. Among the suggested means for evaluation are locally and nationally developed language proficiency instruments, pre/post testing; and criterion reference testing.[10] Though specific types of tests are suggested, no specific instruments are recommended.

In 1970, Theodore Anderson and Mildred Boyer provided United States educators with a comprehensive overview of bilingual schooling in the United States. Little mention is made of specific evaluation instruments to assess pupil achievement in bilingual programs. Instead the constant, re-occuring concern appears related to the critical shortage and the need to develop appropriate instruments to assess pupil achievement in each content area in appropriate languages at each grade level.[11]

Eleanor Thonis talks of oral language dominance and informal language assessment instruments, but both relate to language acquisition only and do not measure content area achievement. For Spanish reading she suggests locally developed criterion reference tests.[12]

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[10] Bilingual Bicultural Education and ESL Education, A Framework for Elementary and Secondary Schools, California State Department of Education, Wilson Riles, Superintendent of Public Instruction, 1974, pp. 27-29.

[11] Theodore Anderson and Mildred Boyer, Bilingual Schooling in the United States, Vol. one, Southwest Educational Laboratory, Austin, Texas, January, 1970, p. 70.

[12] Eleanor Thonis, Evaluation Considerations for Bilingual-Bicultural Education, California Evaluation Improvement Project. Project funded by ESEA Title V.C., Office of Program Evaluation and Research, California State Department of Education, April 1975, pp. 10-11.

Chicago's Board of Education, in its Comprehensive Design for Bilingual-Bicultural Education, totally avoids evaluation of program, but rather merely contents itself with stating that there is a need for evaluation instruments that recognize the students' cultures and languages, and includes diagnostic, achievement and individual group tests.[13]

The Puerto Rican Congress of New Jersey recently published, "Evaluation Echoes, A Teacher's Guide for Selecting Bilingual Education Materials." Two evaluation instruments are listed, "Spanish Test of Oral Proficiency," published by BABEL (Bay Area Bilingual Education League), Berkeley, California, and the "Program Management System, by Santillana Publishers, New York. The Spanish test of oral proficiency measures only participating students oral proficiency in the Spanish language.[14] It does not assess content area achievement.

The Santillana Program Management System is perhaps the most positive step taken by United States publishers to produce a comprehensive management and evaluation system for bilingual programs. The system consists of a summative

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[13] A Comprehensive Design for Bilingual-Bicultural Education, Department of Government Funded Programs, Board of Education of the City of Chicago, 1974, p. 19.

[14] Evaluation Echoes, A Teachers Guide for Selecting Bilingual Education Materials, Puerto Rican Congress of New Jersey, 1976, p. 25.

evaluation program geared to determine skills needed to reinforce learning prior to introducing initial reading. The second component, the Criterion Reference Assessment, is formative in nature and aimed at diagnosing skills not mastered, and prescribing additional activities for their reinforcement.[15] Weaknesses of the system are: 1) limited to reading and 2) the requirement that the teacher use Santillana-only reading materials. A general and repeated criticism at public hearings was the lack of valid and adequate evaluation data to assess the effectiveness of different kinds of bilingual programs.[16]

Recognizing the shortage of evaluation assessment instruments, several local and national groups have collected and published annotated bibliographies of available evaluation instruments thought appropriate for usage in bilingual programs. The National Dissemination Center for Bilingual-Bicultural Education's bibliography, "Evaluation Instruments for Bilingual Education," is divided into these sections: Project-Developed Instruments, Commercially Published Instruments, and Instruments from Non-Commercial sources. The Dissemination Center is part of a national network of ESEA Title

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[15] Ibid, p. 49.

[16] Toward Meaningful and Equal Educational Opportunity, Report of Public Hearing on Bilingual-Bicultural Education, Special Sub-committee on Bilingual-Bicultural Education of the California State Assembly, July, 1976, p. 66.

VII bilingual resource centers and is perhaps the most current and up-to-date source of currently available materials for bilingual programs.

A glance through the annotated bibliography demonstrates again the lack of complete bilingual management systems available for Spanish, Portuguese, and English containing student performance objectives, criterion reference tests, mastery tests and computerized class profiles. The guide does provide information on instruments that may be used to assess language arts only, or reading only kindergarten through third grade, but no system presents a total comprehensive package kindergarten through sixth grade. Generally, the existing instruments are language proficiency or language dominance tests (i.e., "Language Proficiency Placement Test" by Esther Cuesta, Tucson Public Schools, designed from grades one through sixth in Spanish and English to identify monolingual Spanish, monolingual English, and bilingual students.)[17]

A secord publication sponsored by C.A.B.E. (California Association of Bilingual Education) entitled, "A Brief Review of Assessment Instruments for the Bilingual Student" again falls short of providing viable models for total bilingual curricula program evaluation. At best the most comprehensive series of tests suggested are the Cooperative Inter-American Series Tests of: language usage, natural sciences, reading,

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[17] Evaluation Instruments for Bilingual Education: An Annotated Bibliography, Dissemination Center for Bilingual-Bicultural Education, Austin, Texas, 1975, p. 10.

and social studies. The tests are in Spanish, primarily for grades eight through thirteen. The tests were produced in 1950 by Guidance Testing Association.[18]

An ERIC Search produced fourteen publications: twelve (12) English as a second language instruments (not appropriate for bilingual education), one instrument entitled, "Cultural and Social Factors in the Assessment of Language Capabilities," and the National Consortia for Bilingual Education (now called the Dissemination Center for Bilingual Education) publication, "Tests in Use in Title VII Bilingual Education Projects, 1971." This latter document succeeded the 1975 publication by the national dissemination center quoted earlier.

Two final sources were worthy of investigation. Mrs. Sylvia Rothfarb, Supervisor of Evaluation for the Spanish Curricula Development Center, Miami, Florida was contacted regarding possible prototypes of bilingual management systems. The Center has produced primary level Spanish and English curriculum, teachers guides and support materials for five instructional guides and support materials for five instructional strands: Spanish language arts, social studies, science/mathematics, fine arts, and Spanish as a second language. The materials have been extensively field tested across the nation,

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[18] A Brief Review of Assessment Instruments for the Bilingual Student, Office of the Los Angeles County Superintendent of Schools, Division of Curriculum and Instruction, May, 1975, p. 19.

Hayward Unified School District being one of the original informal field testing sites. According to Mrs. Rothfarb, she has recently completed criterion reference tests to accompany the materials. The tests in addition to yielding information on the materials developed by S.C.D.C. (Spanish Curricula Development Center), should also show how the pupil is functioning in a particular area and where more instruction is needed. The tests which are by grade level and subject, are in the pilot stage and the results of the tests will be useful in the revision process. Mrs. Rothfarb agreed the tests being developed could not be used without the accompanying curricula and they were not applicable to other curricular publications.[19]

Finally, the author of this practicum surveyed eighteen (18) California school districts with bilingual programs seeking information on evaluation instruments used in their programs. The responses were similar from the twelve (12) responding districts: No, they do not use such a system as described in the memo, yes, they use standardized tests and locally developed criterion reference tests and yes, they would be very interested in using such a system for bilingual program evaluation if such were developed. (See this volume Appendix A for memo and questionnaire sent to bilingual directors.)

The mandate is clearly obvious here. From the most

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[19] Spanish Curriculum Development Center Bilingual Curriculum Strands, Dissemination Center for Bilingual Education, Austin, Texas, 1974.

current sources of information about bilingual education comes a continuing echo: "There is a deficiency of bilingual evaluation assessment instruments." To date, no system has been developed encompassing a comprehensive bilingual curriculum for grades kindergarten thru sixth in Spanish, Portuguese and English, including student performance objectives, criterion reference tests to assess the objectives, pre-post mastery tests at each grade level, subject, and language area, and computerized class profiles. It is within this realm this practicum is concerned.

PROCEDURES FOR REVISION, DEVELOPMENT AND IMPLEMENTATION OF A BILINGUAL EVALUATION MANAGEMENT SYSTEM

Goals of the Practicum

There is a need to develop a comprehensive Bilingual Management System. This is true in the United States as well as in Hayward. Such a system will provide a means of monitoring as well as, assessing participating students' achievement both in the dominant and in the second language in all major subject areas.

The major goals of the Bilingual Management System are:

1. To provide sufficient evaluation data for longitudinal studies of individual students performance.
2. To provide measureable data as to the effectiveness of bilingual programs.
3. To provide bilingual program teachers with a monitoring system capable of relating to individual student achievement based on performance utilizing instructional objectives, pre-post mastery tests, and criterion reference tests.

The system should encompass individual student performance to complete objectives in both English, Spanish, and Portuguese reading, mathematics, second language learning and multicultural social studies. It should provide: 1) a method for placing students utilizing pre-mastery tests; 2) an on-

going assessment of student progress in instructional objectives using criterion reference tests, and 3) post-mastery tests to determine growth achieved in the program.

Objectives of the Practicum

The practicum design is centered around the following specific objectives:

I. Revising kindergarten thru sixth grade student performance objectives for:
   A. language arts-reading
   B. mathematics
   C. second language learning
   D. multicultural social studies

II. Designing, developing and implementing kindergarten thru sixth grade criterion reference tests in English, Spanish and/or Portuguese for:
   A. language arts-reading
   B. mathematics
   C. second language learning
   D. multicultural social studies

III. Designing, developing and implementing criterion reference tests item critique and item bank cards.

IV. Designing, developing and implementing kindergarten thru sixth grade pre-post mastery tests

in English, Spanish and/or Portuguese for:

A. language arts-reading

B. mathematics

C. second language learning

D. multicultural social studies

V. Designing, developing and implementing computerized answer sheets for the administration of criterion reference tests and mastery tests.

VI. Developing print-out sheets which provide for individual student and class profiles.

VII. Utilizing the Data Processing Center to establish a process for developing longitudinal studies for participaing students.

VIII. Developing an evaluation report reflecting the newly developed and implemented Bilingual Management System.

IX. Installing the Bilingual Management System in all bilingual program schools in the Hayward Unified School District.

Procedures for Achieving Objectives

Revision of student performance objectives: There was a need, in Hayward's bilingual program to revise the kindergarten thru sixth grade student performance objectives. The stated objectives by bilingual teachers were complicated, unorganized, lengthy and many times unmeasureable. Our first year the plan for revision was given to a committee (composed

of the three bilingual program assistants, bilingual teachers, bilingual instructional aides and the project director) to study, analyze and revise existing student performance objectives. Those persons selected to participate were most knowledgeable about the required curriculum. They were persons directly involved in the teaching process. Release time was provided for bilingual teachers and bilingual instructional aides during school hours. In addition, at the end of the school year the committee worked an additional two weeks.

Those bilingual teachers and instructional aides selected as committee members had at least two year's experience in the district's bilingual program. Our purpose was to utilize persons familiar with materials used in the program as well as having used the existing student performance objectives.

The committee first studied the PIRAMID reading and mathematics objectives for their adaptability to the bilingual program. Most staff members agreed the PIRAMID system had far too many objectives per grade level. The committee felt this number was unmanageable. After careful analysis of each objective, it was decided that a system could be developed with no more than ten (10) objectives per grade level. The task, was to select, and arrange, the continuum of objectives in such a way that they would become the major terminal objectives. Therefore, each objective mastered would represent mastery of previously taught sub-objectives. The committee agreed to follow three basic steps as they studied existing objectives:

. Group performance objectives by grade level.

- Re-group performance objectives by subject area with grade levels.
- List the performance objectives in their order of difficulty for each subject area.

Once the objectives for reading and mathematics were determined, it was necessary to translate and adapt for use in Spanish and Portuguese. The mathematic objectives proved a relatively easy task, since mathematics is an international language. The objectives merely had to be translated into Spanish and Portuguese. The reading objectives involved more adaptation since the format and structure for teaching reading in Spanish and Portuguese is vastly different than teaching reading in English.

Second language acquisition and multicultural social studies objectives had to be revised next. This was more difficult since there were no known systems to refer to, that contained similar objectives. The committee decided to list all the important areas for each content area. From these lists terminal objectives were developed for each grade level.

The committee decided a coding system was needed for fast reference of the objectives. The code had to contain the following information: subject, grade, level, and number of objective. The following coding system was developed:

Ex: RO.205 = Reading, Kindergarten, 2nd Level, Fifth Objective

M5.210 = Mathematics, Fifth Grade 2nd Level, Tenth Objective

As the objectives were revised, every bilingual teacher on the staff along with the administration had an opportunity to examine each objective. The author along with the writing committee, wrote and rewrote each objective as many times as necessary in order to be sure it related to student needs. An effort was made to make the objectives short and to the point and not use extra words or phrases. Student needs were always the most important factor.

Development of criterion reference tests: Once the objectives were developed, it was determined they needed field testing in select bilingual classrooms to determine their feasibility. To facilitate this process it was decided each objective had to have a criterion reference test to determine mastery of the objective. Each committee member developed five (5) test items for each objective. From this pool of test items the five most appropriate items were selected for each criterion reference test. Objective mastery was agreed to be four (4) out of five (5) items right or 80% accuracy.

The next step was to design the test format. Extensive review of existing criterion reference tests were made (i.e., PIRAMID, SOBER español, and the Santillana series systems.) It was agreed that the position of the questions on the test was an important factor. In addition, the type of answers to be elicited (i.e., multiple choice or true/false,) and the number of answer choices would be an important consideration. The order of the answer choices had to be

considered. Many locally developed instruments have failed because consideration was not given to these areas resulting in students learning the easy test format and clearly passing all test items.

The committee agreed on seven (7) items necessary for each criterion reference test. Each criterion reference test needs to include: 1) a heading, 2) objective number, 3) performance objective, 4) criterion for mastery, 5) student name and grade, 6) directions for teacher and/or student, and 7) items and answer choices. Table one (1) illustrates the position of the seven items on a sample criterion reference test. (See page 24 for Table 1)

TABLE 1

(2) M 8.002 (3) Dándole al estudiante un numeral mixto él lo cambiará a una fracción. (4) (Criterion: 4)

Spanish Criterion Reference Test

(1) Math

(5) NOMBRE _____

FECHA _____

(6) INSTRUCCIONES: Lee cada numeral mixto. Cambialo a una fracción. Marca el espacio que indica la respuesta que tú escojes.

(7)

1. $12\frac{1}{2}$	Ⓐ $\frac{1}{24}$	Ⓑ $\frac{25}{2}$	Ⓒ $\frac{13}{2}$	Ⓓ $\frac{24}{2}$
2. $8\frac{2}{3}$	Ⓐ $\frac{26}{3}$	Ⓑ $\frac{26}{8}$	Ⓒ $\frac{2}{24}$	Ⓓ $\frac{16}{3}$
3. $2\frac{7}{8}$	Ⓐ $\frac{14}{8}$	Ⓑ $\frac{56}{7}$	Ⓒ $\frac{23}{8}$	Ⓓ $\frac{15}{2}$
4. $6\frac{5}{8}$	Ⓐ $\frac{53}{5}$	Ⓑ $\frac{39}{8}$	Ⓒ $\frac{48}{5}$	Ⓓ $\frac{53}{8}$
5. $9\frac{3}{7}$	Ⓐ $\frac{66}{7}$	Ⓑ $\frac{63}{7}$	Ⓒ $\frac{29}{7}$	Ⓓ $\frac{19}{7}$

Table 2 is a list of considerations and recommendations for developing criterion reference tests. This list was developed by the committee after they worked on the first criterion reference tests for reading and mathematics.

TABLE 2

CONSIDERATIONS-RECOMMENDATIONS FOR DEVELOPING CRITERION REFERENCE TESTS

1. Be consistent in the wording of directions from one test to the next.
2. Field test all CRT's with a random sample of students before mass duplication.
3. Coordinate the items so that the same answer key may be used in both languages. (ie. Spanish and English social studies CRT's for grade 5)
4. Avoid having all true or all false answers.
5. Avoid repetition of pattern in answers.
6. Do not teach from the test.
7. Do not correct the test in the presence of the student.
8. Do not tell the student exactly what items he left out or answered incorrectly.

Development of mastery tests: The next step was to develop pre/post mastery tests for reading and mathematics. The bilingual curriculum committee felt the fall mastery testing administered according to the student's dominant language, would provide a method for accurately placing children at their instructional level. The spring mastery test should indicate achievement growth. Mastery tests were developed by selecting the best two items, or the two most comprehensive items from each developed criterion reference test. These were then compiled into one mastery test which contained a maximum of twenty items per grade level per subject area, (i.e., reading and mathematics.)

Criterion reference and mastery, test of validity: To assess validity of the criterion reference and mastery tests, the district's Supervisor of Evaluation suggested a systematic process for evaluating each instrument. The process included questions to be asked about each developed test instrument. The following test of validity was used:

a) Is information provided to indicate a rigorous selection of items and careful sampling of the behavior domain?

(Each of the fifteen (15) committee members originated five test items to cover each performance objective. From this pool of test items the committee carefully analyzed each for appropriateness to the objectives and its parallel with the desired out-

come. Care was taken to insure maximum coverage of each behavior tested. Several committee members reviewed each item as it related to the subject area tested.)

b) Were any empirical procedures used for screening or selecting the items?

(The committee selected to develop the test items was considered a jury of experts. The committee did an item analysis of each item to determine effectiveness and appropriateness to the objective.)

c) Is there any information provided -- either empirical or theoretical -- to justify the parallelism of the alternative language forms of the tests?

(Based on the committee's bilingual experience it was agreed that translation of language would not suffice. Instead, the item generation procedures for each language had to specify the alternative language forms used in measuring parallel constructs.)

d) Does the construct or type of behavior the test purports to measure, have a supportive base in linguistic, educational, psychological, or learning theory?

(Linguistics play an integral role in bilingual education. Several committee members have studied linguistics and applied their findings to the test development process. The tests were based upon the

district's approved educational curriculum guide, kindergarten thru sixth grade.)

e. Have the tests been employed in experiments or evaluations and produced meaningful results?

(The reading and mathematics criterion reference tests were piloted on 27 students who were in the original bilingual classes in the district. Test results bore out teacher judgements and expectations regarding student achievement.)

f. Do the tests justify themselves by explaining to the examinee its purpose, intent, or recommended use?

(Each criterion reference test contains instructions to the examinee in the appropriate language. Additionally, the objective is stated clearly spelling out the intent of the test. Each mastery test contains a teacher's guide indicating exactly what to do and what to say. The student's copy also includes directions on what is expected.)

g. Are the items relevant, interesting and culturally appropriate for bilingual students?

(Cultural appropriateness is the major criticism of standardized monolingual English instruments. Since the committee members were all bilingual-bicultural, every effort was made to provide interesting, relevant and culturally fair items.)

h. Are test instructions oral or written?

(Both methods are used.)

i. What is the mode of examinee response?

(True/false and multiple choice. In the primary grades the student responds orally and the teacher bubbles in the response on the students answer sheet.)

j. Who can administer the tests?

(Either the bilingual teacher or bilingual instructional aide can administer the tests. With proper orientation and instruction, parent volunteers may also give the tests.)

k. How great is the range of complexity or difficulty of the tests?

(Objective content has been arranged by grade level equivalent. Additionally, each subject area divided into grades is further broken into two levels - the first being easier and the second more complex.)

l. Can decisions be made?

(Yes, the entire test system is a decision-making process based on student achievement. Pilot test results indicated where students were, and where they were to go.

Development of student answer sheets: By October 1975,

the newly developed reading and mathematics criterion reference tests and mastery tests were ready to be field tested. A full-day inservice was conducted to familiarize staff with the new system. Based on questions, revisions were made. Concerns centered around time needed to maintain the record keeping system. The committee studied various methods for recording results. The management system was the answer. One of the most widespread criticisms of the PIRAMID Management System was its lengthy recording system. Example: A plus (+) was recorded on the class profile for a child successfully passing a given performance objective. A lack of success was indicated by a minus (-). Later, if he/she passed the objective, the plus was completed. The pluses and minuses were done in different colored pencils designating the month tested and passed. Though efforts were employed to standardize the color of pencils for recording, most schools resorted to developing their own color code system. This caused havoc for the organized systematic evaluation process.

It became obvious a student answer sheet needed to be developed. This was necessary for two reasons: 1) to provide a consolidated place for all test answers, and 2) to provide a single sheet monitoring system for each child in the four content areas. After considering several models it was decided the criterion reference answer sheet should be divided into the four content areas (i.e., reading, mathematics, second language and social studies.) It would be printed both front and back, providing spaces for testing ten (10) objectives in

each content area. Each answer space could be used for either true/false or multiple choice responses.

Additionally, the top of the answer sheet would provide necessary student information for longitudinal study purposes and test analysis. This includes the name of the school, teacher and student number, student's grade level, and language dominance. (See Vol. IV Appendix XXIV for sample criterion reference test answer sheet).

It was decided the mastery test answer sheet should be parallel and similar in structure. The front side would be used for pre-mastery tests and the back side for post-mastery tests. Under each content area twenty-five (25) spaces would be provided for student answers. (Presently all mastery tests contain twenty-five items or less -- see Vol. IV Appendix XXV for sample mastery test answer sheets).

Development of computer print-outs: The feasibility of having answer sheets read by computer was established. The Director of Data Processing, in approving the answer sheet format, indicated it could be easily adapted to their computer process. By January 1976, the program received the first "print-outs" for fall mastery testing. A number of problems arose resulting from human, as well as computer error. Despite these problems, the print-outs gave a general picture of where most students were. The program's outside evaluator, together with the bilingual program assistant for evaluation, held a special inservice workshop for teachers in February,

to explain how to read and interpret the print-out sheets. suggestions were made regarding accuracy in bubbling in answers which cause many computer errors. For instance, it was learned that unappropriate erasures were automatically read by the computer, but partially bubbled answers were not. (See Vol. IV Appendix XXVII for copies of the mastery test print-outs).

Development of item critique and item bank cards: In using criterion referenced and pre-mastery tests (for reading and mathematics), teachers noted improperly stated and unappropriate items for stated objectives. In the revision process an Item Critique Card was then developed. This provided staff members a vehicle in the on-going evaluation process of the system. A teacher questioning the validity of a certain item could submit in writing his/her critique of what was wrong with the item. Additionally, a second card was developed entitled, "Criterion Reference Tests Item Bank," where a teacher could submit new items to replace invalid or non-suited items and have them critiqued by the bilingual curriculum committee. (See Vol. III, Appendix XIV for copies of Criterion Reference Test Item Bank, Item Critique Cards).

In April bilingual teachers submitted student answer sheets to data processing and in May, the results were returned. The proposed turn-around time was to be approximately five (5) days, however, the system was still experiencing technical and human errors causing the long delays. Also in May, post-

mastery tests in reading and mathematics were administered in each bilingual classroom.

In July results of the first year piloting of the Bilingual Management System was presented to the district's Executive Council and Board of Education in the form of the ESEA Title VII Final Evaluation Report. (See this volume Appendix B).

Development of criterion reference and mastery tests for second language and multicultural social studies: In the spring the writing committee began writing criterion reference tests for second language acquisition. This was more complex than the reading and mathematics criterion reference tests because there were no known reference systems available. Levels of proficiency and competency had to be developed for each second language. The committee had to rely heavily on past teaching experiences to determine when components of language acquisition should be introduced and mastered by students. Commercial textbooks were of little use because practically nothing has been published for second language studey. Foreign language teaching methods provided a beginning stage. The committee then developed criterion reference tests based on the revised continuum of second language acquisition performance objectives.

After school was out, the committee worked for two weeks completing the criterion reference tests for second language acquisition. Additionally, criterion reference tests

for multicultural social studies were written. The same process was used for item generation as was used for reading and mathematics criterion reference test development.

Prior to school opening in September, 1976, the committee met again to complete the criterion reference tests for second language acquisition and multicultural social studies; and to develop mastery tests for the two remaining content areas.

Mastery tests for second language acquisition were fairly easy. Multicultural social studies, however, was another problem. The reason was the skills content was extremely limited by virtue of the subject matter. In addition, fewer objectives and criterion reference tests had been developed for this content area. Consequently, the decision was made that there would only be on-going criterion reference tests for multicultural social studies without pre-post mastery testing.

Development of a data bank: In order to provide staff with longitudinal data on participating students, a data bank was established. Utilizing the District's Data Processing Center and the Stanford Univiersity Data Processing Center, the outside evaluator developed a data storage system. The data storage phase of the Bilingual Management System is where data from all sources are collected and coded onto punched cards for data analysis and data banking. Each child in the program now has a record (beginning with fall 1975), onto which the information from the mastery tests and criterion reference

tests are recorded, as well as data from standardized testing, information specific to the subject (grade level, language dominance, classroom, language spoken in the home, and so on), and school related information such as attendance and grade point average. Students are assigned identification numbers by the district and these are used along with the name of the student to locate students who move in and out (or within), of the district. Those data are continuously recorded and kept in a master file. Each year, the previous year's record is carried forward and records of students who have left the program (temporarily or permanently), are stored so that the computer can "pick up" the child's record again should he/she return to the program.

Full Implementation of the Bilingual Management System

By September, 1976, the entire system was complete. All necessary revisions, corrections, and additions had been incorporated into the materials and it was now ready for dissemination to bilingual teachers for implementation in the 1976-1977 school year. This second year provided staff the necessary time to field test all components of the system. The teachers constant input provided the basis for a finely-tuned educational monitoring system.

Based on data available from the previous years criterion reference tests and spring mastery test results, the staff determined the appropriate level for testing for each child in each subject area. Following the fall mastery testing,

each child's placement was re-evaluated. Each child moved up to the next level for instruction when better than 80% accuracy was accomplished.

Fall mastery testing in the four content areas was completed by mid-October and submitted to data processing for analysis. Turn-around time was reduced from a month to less than two weeks. The October data indicated which objectives were yet to be mastered. This provided the vehicle for teachers to begin teaching specific objectives followed by the ongoing administration of criterion reference tests to assure mastery.

As the program approached the December deadline for submission of criterion reference test answer sheets, teachers requested postponement because of the upcoming holidays. In addition, many schools were receiving "Monitor and Review Teams" from the California State Department of Education causing added delays in the test process. The date was changed to February 10, 1977. The results were returned to the program by February 15, 199. The staff utilized the information for further diagnosis and prescription of individual students.

At the February 24, staff meeting, a discussion was held regarding any necessary revisions, or additions to the Bilingual Management System. Concern was raised about machine scoring and the committee agreed to study alternative ways for scoring criterion reference tests and mastery tests.

As part of the ESEA Title VII Continuation Application process, the Bilingual Management System was reviewed and

a progress report given to the District Advisory Committee for Bilingual Multicultural Education. On March 7, 1977, the author of this practicum outlined for the Superintendent's Cabinet and the Board of Education, the proposed bilingual program for the coming year. An overview of the Bilingual Management System was presented at that time. Approval for the program was authorized for all bilingual schools in the Hayward Unified School District. (See this volume, Appendix C).

The Bilingual Management System considered complete and operative, except for ongoing revisions, was included in the ESEA Title VII Continuation Application Update submitted to the United States Office of Education on March 16, 1977.

MEASUREMENT AND EVALUATION

The entire emphasis and scope of this practicum was the development of an improved evaluation system for bilingual education programs. It was incumbent upon the writer of this practicum, therefore, to develop an effective method for the evaluation of the practicum itself, and to determine whether or not the efforts exerted proved beneficial to the successful development of a Bilingual (evaluation) Management System.

Consequently, the evaluation techniques used in this practicum were the following:

1. The kindergarten thru sixth grade student performance objectives for language-arts-reading, mathematics, second language learning and multicultural social studies be revised.

   (This has been completed. Volume II Appendix I contains the District and United States Office of Education approved kindergarten thru sixth grade student performance objectives for language arts-reading, mathematics, second language learning and multicultural social studies).

2. Design, develop and implement kindergarten thru sixth grade criterion reference tests in English, Spanish and/or Portuguese for language arts-reading, mathematics, second language learning and multicultural social studies.

   (This has been completed. The process for their development and implementation is described in detail on

p. 21 under Procedures for Achieving Objectives. Additionally, the measurement validity applied to each criterion reference test is described on p. 25).

The completed criterion reference tests are found in the following volumes:

Volume II

Appendix II - kindergarten thru sixth grade English reading criterion reference tests

Appendix III - kindergarten thru sixth grade Spanish reading criterion reference tests

Appendix IV - kindergarten thru sixth grade Portuguese reading criterion reference tests

Appendix V kindergarten thru sixth grade English mathematics criterion reference tests

Volume III

Appendix VI - kindergarten thru sixth grade Spanish mathematics criterion reference tests

Appendix VII - kindergarten thru sixth grade Portuguese mathematics criterion reference tests

Appendix VIII - kindergarten thru sixth grade English/Spanish, English/Portuguese

multicultural social studies criterion reference tests

Appendix X - kindergarten thru sixth grade Portuguese multicultural social studies

Appendix XI - kindergarten thru sixth grade English as a second language, multicultural social studies criterion reference tests

Appendix XII - kindergarten thru sixth grade Spanish as a second language, multicultural social studies criterion reference tests

Appendix XIII - kindergarten thru sixth grade Portuguese as a second language, multicultural social studies criterion reference tests

The criterion reference tests are an integral part of the evaluation reporting data. We now have a more accurate picture where students are and their specific needs for further growth. The evaluation reports listed in Appendices B,D, and E are indicative of the improved system for reporting evaluation data.

3. Design, develop and implement criterion reference tests, item critiques and item bank cards.

(The item critique and item bank cards are com-

pleted. They have been used in the development and revision process of the criterion reference tests. The technique provides a continual monitoring and feedback mechanism resulting in updated targeted tests. See Volume III Appendix XIV for the criterion reference test item bank and item critique cards).

4. Design, develop and implement kindergarten thru sixth grade pre-post mastery tests in English, Spanish and/or Portuguese for language arts-reading, mathematics, second language learning and multicultural social studies.

(The kindergarten thru sixth grade pre-post mastery tests in English, Spanish and/or Portuguese for language arts-reading, mathematics and second language learning have been completed and are being implemented in every bilingual classroom. They may be found in Volume IV of this practicum:

Appendix XV - kindergarten thru sixth grade English reading mastery tests

Appendix XVI - kindergarten thru sixth grade Spanish reading mastery tests

Appendix XVII - kindergarten thru sixth grade Portuguese reading mastery tests

Appendix XVIII - kindergarten thru sixth grade English mathematics mastery tests

Appendix XIX - kindergarten thru sixth grade Spanish mathematics mastery tests

Appendix XX - kindergarten thru sixth grade Portuguese mathematics mastery tests

Appendix XXI - kindergarten thru sixth grade English as a second language mastery tests

Appendix XXII - kindergarten thru sixth grade Spanish as a second language mastery tests

Appendix XXIII - kindergarten thru sixth grade Portuguese as a second language mastery tests)

The rationale for not developing mastery tests for multicultural social studies is presented on page 33.

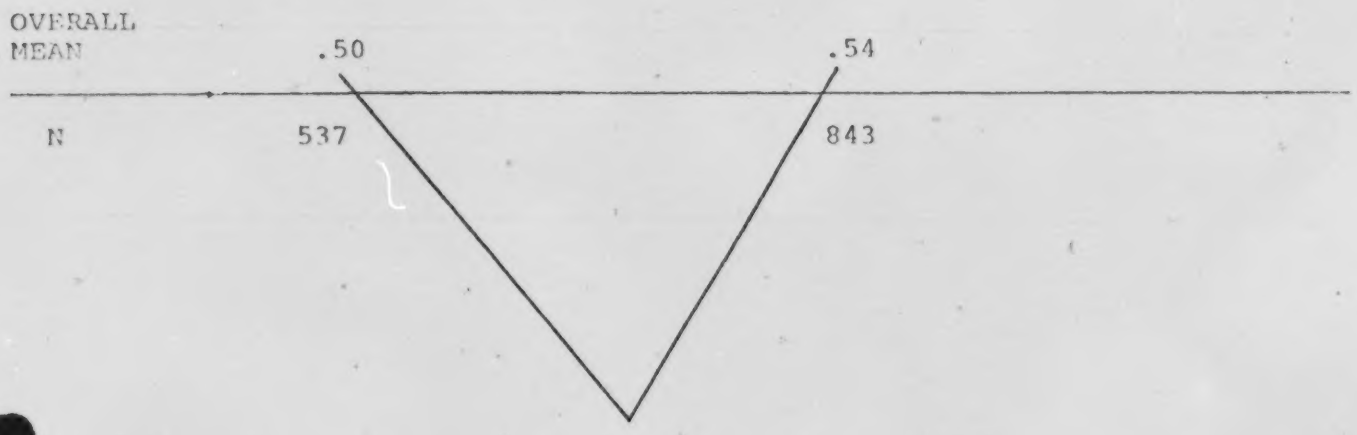
The following tables show a sampling how mastery test results are used for reporting evaluation data to state and federal funding agencies. Table 3 shows mastery test (pre-test comparisons for Reading between 1975-1976 and 1976-1977.)

TABLE 3

Mastery Test (Pretest Comparison) Same Population

Proportion Correct

READING Level of Test	1975-1976		1976-1977	
K	.48	n=118	.52	n=177
1	.42	n=144	.46	n=165
2	.47	n=111	.49	n=164
3	.58	n=104	.65	n=143
4	.53	n=48	.60	n=135
5	.79	n=10	.70	n= 38
6	.81	n= 2 (Others at Jr. High)	.70	n= 21



n = 508 t = -4.88 significant difference

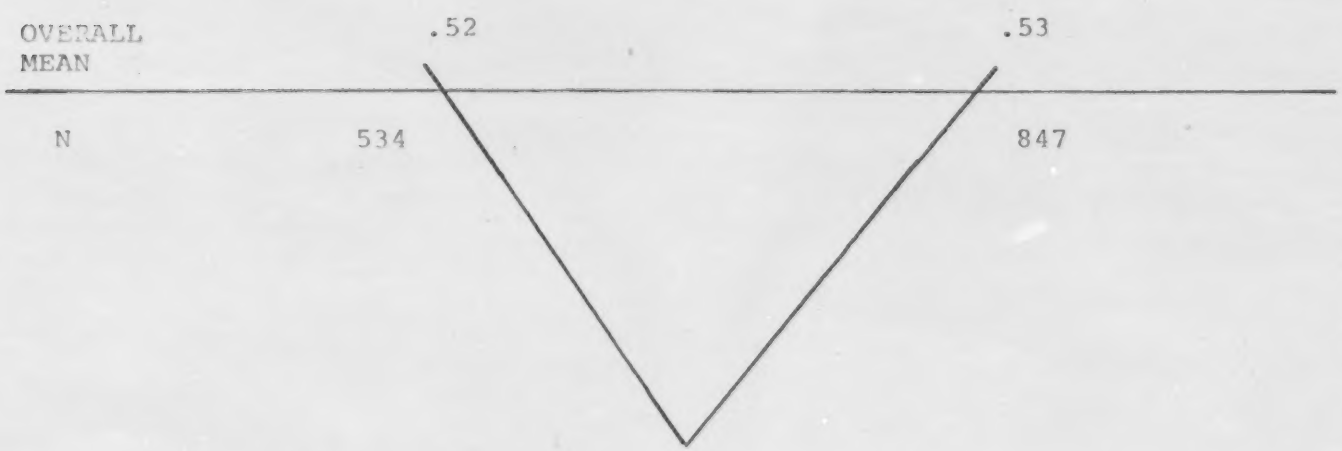
Table 4 shows mastery test pretest comparisons for Mathematics.

TABLE 4

Mastery Test (Pretest Comparison)

Proportion Correct (76-77 Population)

MATHEMATICS		1975-1976		1976-1977	
Level of Test	K	.54	n=112	.57	n=174
	1	.47	n=144	.47	n=166
	2	.60	n=112	.62	n=150
	3	.51	n=104	.54	n=161
	4	.44	n= 53	.49	n=135
	5	.49	n= 9	.39	n= 48
	6	Winton or other Jr. High		.57	n= 13



n=509 t= -.57 not significant

Table 5 shows results of mastery testing for second language acquisition. Note, no comparison is made since the second language component was initiated this school year, 1976-1977.

TABLE 5

Proportion Correct

SECOND LANGUAGE	Level of Test	1976-1977	
A	0	.29	n=141
A	1	.57	n=306
B	2	.76	n=170
C	3	.56	n= 98
D	4	.72	n= 56
E	5	.60	n= 17
F	6	.69	n= 7
G	7	.77	n= 12
OVERALL MEAN		.57	
N		807	

5. Design, develop and implement computerized answer sheets for the administration of criterion reference tests and mastery tests.

   (The answer sheets are completed and are being used in every bilingual classroom. See volume IV, Appendix XXIV for the criterion reference answer sheet).

6. Develop print-out sheets which provide for individual and class profiles.

   (This has been completed. Bilingual teachers receive class print-outs four times a year. When bilingual teachers and bilingual instructional aides were asked about the system on the end-of-the-year questionnaire, their responses were positive. Table 6 presents a summary of their responses on the pertinent items).

TABLE 6

Teacher Responses to Questions Concerning

CRT and Mastery Test Printouts

	Poor	Average	Very Good
In terms of clarity and understanding, how would you rate the Criterion Reference Test printouts?	2%	63%	35%
In terms of clarity and understanding, how would you rate the Pre - and Post - Mastery Test printouts?	8%	42%	50%

(See volume IV Appendices XXVI AND XXVII for criterion reference test print-out sheets and mastery print-out sheets).

7. Utilize data processing to develop longitudinal studies on participating students.

(The data bank is complete and operative. See p. 33 for a description of this phase of the system. The unique advantage here is not only providing data for longitudinal studies, but, all the data analysis relative to evaluation are performed exclusively on this file).

8. Develop an evaluation report reflecting the newly developed and implemented Bilingual Management

System.

(This has been completed and submitted to the United States Office of Education. See this volume, Appendix D for pertinent pages of the 1976 interim report and Appendix E for the 1977 evaluation report).

9. Install the Bilingual Management System in all bilingual schools in the Hayward Unified School District.

(The completed Bilingual Management System was officially installed in all bilingual program schools in Hayward Unified School District in September, 1976. On March 7, 1977, the Board of Education approved the submission of the ESEA Title VII Application Update which authorizes continued use of the Bilingual Management System. See this volume Appendix C for the Board of Education's resolution and Appendix F for an abstract of the Bilingual Management System contained in this years application update).

Jury of Bilingual Experts

Additionally, the newly developed Bilingual Management System was reviewed and critiqued by a team of outside bilingual specialists composed of an outside evaluator, a county consultant for bilingual education, a district administrator in charge of overall evaluation, and a state depart-

ment consultant for bilingual education. Their statements are found in Appendix G.

Comparative Analysis

A comparative analysis using participating student performance levels with students not participating in the bilingual program indicates bilingual program participants on an average are on par with non-bilingual program participants. A comparison was not possible using the Bilingual Management System as no other classrooms use a comparable system. Instead, the comparative analysis was done using standardized test scores. (TOBE, Test of Basic Experiences, and CTBS, California Test of Basic Skills). Unfortunately, existing state legislation still requires limited English speakers to be pre/post tested and non-English speakers post-tested with standardized tests.

The following tables reflect a school by school comparative analysis.

TABLE 7

BOWMAN SCHOOL (SPANISH) FALL 1976
TOBE/CTBS
READING

GRADE	FIRST BILINGUAL CLASS	SECOND BILINGUAL CLASS	CONTROL	CONTROL	CONTROL	CONTROL	TOTALS
K TOBE	T= N= $\bar{X}$rs= $\bar{X}$ss=						
1 LEVEL A	T=Madrid N=5 $\bar{X}$rs=124.2 $\bar{X}$ss=211	Gonzalez 8 91.8 170	Wilson 27 115.2 193				
2 LEVEL C	T=Madrid N=26 $\bar{X}$rs=36.3 $\bar{X}$ss=2.0		Strelow 26 40.7 2.1				
3 LEVEL 1	T=Broomhead N=9 $\bar{X}$rs=16.3 $\bar{X}$ss=1.7		Strelow 1 24.0 2.1	Smith 7 61.7 4.5	Reinhart 30 30.1 2.6		
4 LEVEL 1	T=Broomhead N=18 $\bar{X}$rs=29.5 $\bar{X}$ss=2.6		Smith 24 51.5 3.9				
5 LEVEL 2	T=Broomhead N=2 $\bar{X}$rs=2.0 $\bar{X}$ss=1.0		Wieg 29 37.0 4.3	Blea 7 55.0 6.0			
6 LEVEL 2	T= N= $\bar{X}$rs= $\bar{X}$ss=						

T = Teacher

N = Number of Scores

$\bar{X}$rs = Mean Raw Score

$\bar{X}$ss = Mean Grade Equivalence

TABLE 8

BURBANK SCHOOL (SPANISH) FALL 1976
TOBE/CTBS
READING

GRADE	FIRST BILINGUAL CLASS	SECOND BILINGUAL CLASS	CONTROL	CONTROL	CONTROL	CONTROL	TOTALS
K TOBE	T= N= $\bar{X}$rs= $\bar{X}$ss=						
1 LEVEL A	T=Stiles N=24 $\bar{X}$rs=99.8 $\bar{X}$ss=177		Holt 22 102.8 180	Stark 4 95.3 173	Poulton 6 115.2 193		
2 LEVEL C	T=Carpenter N=13 $\bar{X}$rs=40.4 $\bar{X}$ss=2.0		Stark 17 16.0 .7	Poulton 18 23.9 1.6			
3 LEVEL 1	T=Carpenter N=7 $\bar{X}$rs=25.6 $\bar{X}$ss=2.2	Perez 15 18.4 1.8	Stark 7 26.1 2.2	Poulton 4 28.5 2.5	McMaster 14 19.9 1.9		
4 LEVEL 1	T=Guerrero N=14 $\bar{X}$rs=43.4 $\bar{X}$ss=3.4	Perez 7 16.9 1.7		Matthews 8 49.3 3.7	McMaster 10 41.3 3.3		
5 LEVEL 2	T=Harris N=12 $\bar{X}$rs=31.1 $\bar{X}$ss=3.6	Guerrero 11 23.2 2.8	Heath 8 27.0 3.2	Matthews 21 39.0 4.4			
6 LEVEL 2	T=Harris N=17 $\bar{X}$rs=40.7 $\bar{X}$ss=4.7		Heath 17 41.8 4.8	Malcolm 29 43.3 4.9			

T = Teacher

N = Number of Scores

$\bar{X}$rs = Mean Raw Score

$\bar{X}$ss = Mean Grade Equivalence

TABLE 9

CHERRYLAND SCHOOL (SPANISH) FALL 1976
TOBE/CTBS

GRADE	FIRST BILINGUAL CLASS	SECOND BILINGUAL CLASS	CONTROL	CONTROL	CONTROL	CONTROL	TOTALS
K TOBE	T= N= $\bar{X}$rs= $\bar{X}$ss=						
1 LEVEL A	T=Denon-court N=18 $\bar{X}$rs=105.6 $\bar{X}$ss=183		Welch 30 108.7 186	Moore 11 107.0 184	Sisney 11 133.7 245		
2 LEVEL C	T=Ellen-bogen N=6 $\bar{X}$rs= $\bar{X}$ss=	Denon-court 10 29.0 1.8	Reeves 23 42.3 2.1	Godwin 20 31.5 1.8	Garrison 5 68.8 3.5	Moore 21 26.3 1.7	
3 LEVEL 1	T=Ellen-bogen N=7 $\bar{X}$rs=24.0 $\bar{X}$ss=2.1		Garrison 26 38.6 3.2	Reeves 8 20.4 1.9	Godwin 10 21.2 1.9		
4 LEVEL 1	T=Ellen-bogen N=10 $\bar{X}$rs=39.2 $\bar{X}$ss=3.2		Knippez 25 49.4 3.7	Campanile 27 45.9 3.6			
5 LEVEL 2	T= N= $\bar{X}$rs= $\bar{X}$ss=						
6 LEVEL 2	T= N= $\bar{X}$rs= $\bar{X}$ss=						

T = Teacher

N = Number of Scores

$\bar{X}$rs = Mean Raw Score

$\bar{X}$ss = Mean Grade Equivalence

TABLE 10

LORIN EDEN SCHOOL (SPANISH)

FALL 1976
TOBE/CTBS
READING

GRADE	FIRST BILINGUAL CLASS	SECOND BILINGUAL CLASS	CONTROL	CONTROL	CONTROL	CONTROL	TOTALS
K TOBE	T= N= $\bar{X}$rs= $\bar{X}$ss=						
1 LEVEL A	T=Palmer N=15 $\bar{X}$rs=91.6 $\bar{X}$ss=170	Ramirez 9 105.0 182	Hedges 31 123.7 211	Wong 33 118.4 198			
2 LEVEL C	T=Palmer N=15 $\bar{X}$rs=33.9 $\bar{X}$ss=1.9	Alvarez 9 44.7 2.2	Chinn 8 43.4 2.1	Lee 27 36.6 2.0			
3 LEVEL 1	T= N= $\bar{X}$rs= $\bar{X}$ss=	Alvarez 23 34.0 2.9	Chinn 18 32.1 2.8	Moore 24 45.0 3.5			
4 LEVEL 1	T= N= $\bar{X}$rs= $\bar{X}$ss=						
5 LEVEL 2	T= N= $\bar{X}$rs= $\bar{X}$ss=						
6 LEVEL 2	T= N= $\bar{X}$rs= $\bar{X}$ss=						

T = Teacher

N = Number of Scores

$\bar{X}$rs = Mean Raw Score

$\bar{X}$ss = Mean Grade Equivalence

TABLE 11

MARKHAM SCHOOL (PORTUGUESE) FALL 1976
TOBE/CTBS
READING

GRADE	FIRST BILINGUAL CLASS	SECOND BILINGUAL CLASS	CONTROL	CONTROL	CONTROL	CONTROL	TOTALS
K TOBE	T= N= $\bar{X}$rs= $\bar{X}$ss=						
1 LEVEL A	T=Bentley N=16 $\bar{X}$rs=119.6 $\bar{X}$ss=202		Cleveland 19 116.8 197	Klenk 21 118.7 200			
2 LEVEL C	T=Andrade N=20 $\bar{X}$rs=38.5 $\bar{X}$ss=2.0		Paulsen 7 56.1 2.5	Klenk 8 26.5 1.7	Hugen-berger 26 33.1 1.9		
3 LEVEL 1	T=Andrade N=5 $\bar{X}$rs=36.8 $\bar{X}$ss=3.1	Mumford 8 54.8 4.0	Paulsen 20 27.7 2.4	Foster 18 40.1 3.3			
4 LEVEL 1	T= N= $\bar{X}$rs= $\bar{X}$ss=	Mumford 21 58.0 4.2	Enos 26 48.8 3.7	Foster 10 37.0 3.1			
5 LEVEL 2	T=Pereira N=13 $\bar{X}$rs=30.8 $\bar{X}$ss=3.6		Tysz 32 44.5 5.1	Keizur 9 44.4 5.0			
6 LEVEL 2	T=Pereira N=15 $\bar{X}$rs=40.9 $\bar{X}$ss=4.7		Monegan 30 51.4 5.6	Keizur 23 70.3 8.1			

T = Teacher

N = Number of Scores

$\bar{X}$rs = Mean Raw Score

$\bar{X}$ss = Mean Grade Equivalence

TABLE 12

MUIR SCHOOL (SPANISH)

FALL 1976
TOBE/CTBS
READING

GRADE	FIRST BILINGUAL CLASS	SECOND BILINGUAL CLASS	CONTROL	CONTROL	CONTROL	CONTROL	TOTALS
K TOBE	T= N= $\bar{X}$rs= $\bar{X}$ss=						
1 LEVEL A	T=Donoviel N=20 $\bar{X}$rs=107.5 $\bar{X}$ss=185		Richardson 21 110.1 187	Someya 12 107.9 185	D'Ottillie 14 109.1 186		
2 LEVEL C	T=Lucas N=17 $\bar{X}$rs=37.9 $\bar{X}$ss=2.0	Donoviel 2 40.0 2.0	Hubbell 17 32.9 1.9	Someya 17 23.4 1.6	D'Ottillie 15 26.9 1.7		
3 LEVEL 1	T=Lucas N=7 $\bar{X}$rs=45.1 $\bar{X}$ss=3.5		Carter 29 24.8 2.2	Hubbell 14 34.3 2.9			
4 LEVEL 1	T=Nadrowski N=10 $\bar{X}$rs=42.1 $\bar{X}$ss=3.4		Snover 10 45.6 3.6	Packard 7 42.7 3.4	Krug 7 53.6 4.0	Garrity 8 33.8 2.9	
5 LEVEL 2	T=Nadrowski N=8 $\bar{X}$rs=40.6 $\bar{X}$ss=4.7		Snover 8 40.5 4.7	Packard 12 35.4 4.0	Krug 10 42.6 4.9	Garrity 11 30.7 3.6	
6 LEVEL 2	T=Nadrowski N=4 $\bar{X}$rs=42.8 $\bar{X}$ss=4.9		Snover 11 42.5 4.9	Packard 10 50.3 5.6	Krug 10 50.3 5.6	Garrity 11 40.4 4.5	

T = Teacher

N = Number of Scores

$\bar{X}$rs = Mean Raw Score

$\bar{X}$ss = Mean Grade Equivalence

TABLE 13

BOWMAN SCHOOL (SPANISH)

FALL 1976
TOBE/CTBS
MATHEMATICS

GRADE	FIRST BILINGUAL CLASS	SECOND BILINGUAL CLASS	CONTROL	CONTROL	CONTROL	CONTROL	TOTAL
K TOBE	T= N= $\bar{X}$rs= $\bar{X}$ge=						
1 LEVEL A	T=Madrid N=5 $\bar{X}$rs=18.8 $\bar{X}$ge=225	Gonzalez 8 13.8 197	Wilson 26 15.7 209				
2 LEVEL C	T=Madrid N=26 $\bar{X}$rs=22.0 $\bar{X}$ge=1.8		Strelow 26 25.7 2.0				
3 LEVEL 1	T=Broom-head N=5 $\bar{X}$rs=51.0 $\bar{X}$ge=3.2		Strelow 1 29.0 2.1	Smith 7 55.0 3.3	Reinhart 30 38.8 2.7		
4 LEVEL 1	T=Broom-head N=13 $\bar{X}$rs=61.5 $\bar{X}$ge=3.5			Smith 22 59.9 3.5			
5 LEVEL 2	T=Broom-head N=2 $\bar{X}$rs=29.0 $\bar{X}$ge=2.9		Wieg 28 41.6 4.1	Blea 6 56.3 5.3			
6 LEVEL 2	T= N= $\bar{X}$rs= $\bar{X}$ge=						

T = Teacher

N = Number of Scores

$\bar{X}$rs = Mean Raw Score

$\bar{X}$ge = Mean Grade Equivalence

TABLE 14

BURBANK SCHOOL (SPANISH)

FALL 1976
TOBE/CTBS
MATHEMATICS

GRADE	FIRST BILINGUAL CLASS	SECOND BILINGUAL CLASS	CONTROL	CONTROL	CONTROL	CONTROL	TOTAL
K TOBE	T= N= $\bar{X}$rs= $\bar{X}$ge=						
1 LEVEL A	T=Stiles N=25 $\bar{X}$rs=16.4 $\bar{X}$ge=209		Holt 22 16.9 214	Stark 4 16.5 214	Poulton 6 15.2 203		
2 LEVEL C	T=Carpenter N=13 $\bar{X}$rs=25.7 $\bar{X}$ge=2.0		Stark 17 15.9 1.4	Poulton 18 16.9 1.5			
3 LEVEL 1	T=Carpenter N=7 $\bar{X}$rs=28.3 $\bar{X}$ge=2.1	Perez 12 30.3 2.2	Stark 5 30.6 2.2	Poulton 2 29.0 2.1	McMaster 13 24.2 1.8		
4 LEVEL 1	T=Guerrero N=13 $\bar{X}$rs=57.0 $\bar{X}$ge=3.4	Perez 5 33.2 2.3		Matthews 8 71.8 3.9	McMaster 9 48.9 3.1		
5 LEVEL 2	T=Harris N=9 $\bar{X}$rs=44.1 $\bar{X}$ge=4.3	Guerrero 7 30.6 3.1	Heath 6 32.0 3.2	Matthews 45.1 4.4	20		
6 LEVEL 2	T=Harris N=14 $\bar{X}$rs=55.1 $\bar{X}$ge=5.2		Heath 16 41.8 4.1	Malcolm 25 54.4 5.2			

T = Teacher

N = Number of Scores

$\bar{X}$rs = Mean Raw Score

$\bar{X}$ge = Mean Grade Equivalence

TABLE 15

CHERRYLAND SCHOOL (SPANISH)

FALL 1976
TOBE/CTBS
MATHEMATICS

GRADE	FIRST BILINGUAL CLASS	SECOND BILINGUAL CLASS	CONTROL	CONTROL	CONTROL	CONTROL	TOTALS
K TOBE	T= N= $\bar{X}$rs= $\bar{X}$ge=						
1 LEVEL A	T=Denon-court N=18 $\bar{X}$rs=16.5 $\bar{X}$ge=214		Welch 30 16.8 214	Moore 11 17.0 214	Sisney 11 22.8 251		
2 LEVEL C	T=Ellen-bogen N=7 $\bar{X}$rs=31.6 $\bar{X}$ge=2.3	Denon-court 11 22.8 1.8	Reeves 24 27.6 2.1	Godwin 20 24.3 1.9	Garrison 5 41.0 2.9	Moore 21 16.9 1.5	
3 LEVEL 1	T=Ellen-bogen N=7 $\bar{X}$rs=31.4 $\bar{X}$ge=2.2		Garrison 25 42.2 2.8	Reeves 8 29.4 2.1	Godwin 9 31.9 2.3		
4 LEVEL 1	T=Ellen-bogen N=9 $\bar{X}$rs=64.0 $\bar{X}$ge=3.6		Knippel 25 58.3 3.4	Campanile 27 65.1 3.6			
5 LEVEL 2	T= N= $\bar{X}$rs= $\bar{X}$ge=						
6 LEVEL 2	T= N= $\bar{X}$rs= $\bar{X}$ge=						

T = Teacher

N = Number of Scores

$\bar{X}$rs = Mean Raw Score

$\bar{X}$ge = Mean Grade Equivalence

TABLE 16

LORIN EDEN SCHOOL (SPANISH)

FALL 1976
TOBE/CTBS
MATHEMATICS

GRADE	FIRST BILINGUAL CLASS	SECOND BILINGUAL CLASS	CONTROL	CONTROL	CONTROL	CONTROL	TOTALS
K TOBE	T= N= $\bar{X}$rs= $\bar{X}$ge=						
1 LEVEL A	T=Palmer N=15 $\bar{X}$rs=15.9 $\bar{X}$ge=209	Ramirez 9 15.9 209	Hedges 31 17.8 220	Wong 32 18.7 225			
2 LEVEL C	T=Palmer N=16 $\bar{X}$rs=22.9 $\bar{X}$ge=1.8	Alvarez 9 29.2 2.2	Chinn 8 24.5 1.9	Lee 27 21.2 1.7			
3 LEVEL 1	T= N= $\bar{X}$rs= $\bar{X}$ge=	Alvarez 21 38.2 2.7	Chinn 17 43.9 2.9	Moore 25 56.0 3.3			
4 LEVEL 1	T= N= $\bar{X}$rs= $\bar{X}$ge=						
5 LEVEL 2	T= N= $\bar{X}$rs= $\bar{X}$ge=						
6 LEVEL 2	T= N= $\bar{X}$rs= $\bar{X}$ge=						

T = Teacher

N = Number of Scores

$\bar{X}$rs = Mean Raw Score

$\bar{X}$ge = Mean Grade Equivalence

TABLE 17

MARKHAM SCHOOL (PORTUGUESE)

FALL 1976
TOBE/CTBS
MATHEMATICS

GRADE	FIRST BILINGUAL CLASS	SECOND BILINGUAL CLASS	CONTROL	CONTROL	CONTROL	CONTROL	TOTAL
K TOBE	T= N= $\bar{X}$rs= $\bar{X}$ge=						
1 LEVEL A	T=Bentley N=16 $\bar{X}$rs=19.9 $\bar{X}$ge=231		Cleveland 18 17.2 214	Klenk 22 17.0 214			
2 LEVEL C	T=Andrade N=20 $\bar{X}$rs=29.0 $\bar{X}$ge=2.2		Paulsen 7 36.4 2.7	Klenk 8 20.0 1.6	Hugen- berger 26 21.0 1.7		
3 LEVEL 1	T=Andrade N=5 $\bar{X}$rs=40.4 $\bar{X}$ge=2.8	Mumford 8 54.1 3.3	Paulsen 13 35.8 2.5	Foster 18 45.7 3.0			
4 LEVEL 1	T= N= $\bar{X}$rs= $\bar{X}$ge=	Mumford 21 67.4 3.7	Enos 24 60.3 3.5	Foster 10 56.7 3.4			
5 LEVEL 2	T=Pereira N=13 $\bar{X}$rs=48.2 $\bar{X}$ge=4.8		Tysz 30 47.1 4.6	Keizur 9 49.4 4.8			
6 LEVEL 2	T=Pereira N=15 $\bar{X}$rs=59.4 Xge=5.5		Monegan 30 59.3 5.5	Keizur 23 75.4 6.8			

T = Teacher

N = Number of Scores

$\bar{X}$rs = Mean Raw Score

$\bar{X}$ge = Mean Grade Equivalence

TABLE 18

MUIR SCHOOL

(SPANISH)

FALL 1976
TOBE/CTBS
MATHEMATICS

GRADE	FIRST BILINGUAL CLASS	SECOND BILINGUAL CLASS	CONTROL	CONTROL	CONTROL	CONTROL	TOTA
K TOBE	T= N= $\bar{X}$rs= $\bar{X}$ge=						
1 LEVEL A	T=Donoviel N=20 $\bar{X}$rs=15.4 $\bar{X}$ge=203		Richardson 21 16.2 209	Someya 13 13.5 197	D'Ottillie 14 17.6 220		
2 LEVEL C	T=Lucas N=17 $\bar{X}$rs=24.1 $\bar{X}$ge=1.9	Donoviel 2 29.0 2.2	Hubbell 17 24.8 1.9	Someya 17 19.6 1.6	D'Ottillie 15 18.7 1.6		
3 LEVEL 1	T=Lucas N=7 $\bar{X}$rs=42.3 $\bar{X}$ge=2.8		Carter 29 26.6 2.0	Hubbell 14 38.3 2.7			
4 LEVEL 1	T=Nadrowski N=10 $\bar{X}$rs=53.4 $\bar{X}$ge=3.2		Snover 11 57.6 3.4	Packard 6 62.3 3.5	Krug 7 67.6 3.7	Garrity 9 48.1 3.0	
5 LEVEL 2	T=Nadrowski N=8 $\bar{X}$rs=43.9 $\bar{X}$ge=4.3		Snover 7 55.4 5.2	Packard 10 46.5 4.6	Krug 10 48.3 4.8	Garrity 11 44.0 4.3	
6 LEVEL 2	T=Nadrowski N=4 $\bar{X}$rs=46.0 $\bar{X}$ge=4.5		Snover 11 54.0 5.2	Packard 11 59.5 5.5	Krug 10 65.4 5.9	Garrity 10 46.8 4.6	

T = Teacher

N = Number of Scores

$\bar{X}$rs = Mean Raw Score

$\bar{X}$ge = Mean Grade Equivalence

DISSEMINATION OR FURTHER APPLICATION

The Bilingual Management System has become a ready reference to all bilingual program personnel in the Hayward Unified School District. The district is studying the possibility of adapting the system as part of its plan to comply with the U.S. Supreme Court Decision Lau vs. Nichols. Other categorically funded programs are impressed and interested in incorporating portions of the system into their plan for meeting the needs of non-English and limited-English speakers.

Mr. John Moseley, the District's Supervisor on Evaluation has praised the system as "a truly viable means of monitoring pupil progress in the various areas covered in your program," and "this system has many features which could well be utilized by the entire section of our district currently endeavoring to implement learning-management systems." (See this volume Appendix G-4 for Mr. Moseley's memo).

Mr. Chuck Acosta, Consultant for Bilingual Bicultural Education, Office of the Los Angeles County Superintendent of Schools and President of the California Association of Bilingual Education, states: "At a time when all of education is at a crossroads and specifically bilingual education, avenues in search for excellence via the "accountability" emphasis are foremost. Your management system certainly addresses itself to the stringent evidence required in validating progress which in turn has generated a milieu of record-keeping tasks. The Hayward Unified School District's Bilingual Management

System might well be "the" alternative if not the answer." (See this volume Appendix G-3 for Mr. Acosta's letter).

The American Institutes for Research is preparing "A New Bilingual Assessment Instrument Catalogue" to be published in 1977 by the National Institute of Education. A copy of the Bilingual Management System has been sent to them which they have agreed to list in their upcoming catalogue.

Mr. John Correiro, Director of the National Dissemination Center for ESEA Title VII Bilingual Education, has reviewed the materials and has agreed to disseminate them thru the ESEA Title VII national network. (His comments can be found in this volume Appendix H).

Dr. Roberto Cruz, Director of B.A.B.E.L. Programs (Bay Area Bilingual Education League) and the B.A.B.E.L. National Bilingual Resource Center, one of the sixteen (16) centers within the ESEA Title VII national network, endorses the Bilingual Management System as a ... "comprehensive tool to assess their bilingual programs." (See this volume Appendix I for Dr. Cruz's letter).

The practicum is completed, but the Bilingual Management System will only be effective if it continues to be assessed, revised and updated in order to meet current and future student needs.

GLOSSARY

Certain terms used in this practicum report may be unfamiliar to the reader; therefore, a few of the terms, as used in the report, have been defined to help the reader better understand the statements presented in this practicum report.

Bilingual child. Speaks both the language other than English and English with equal ease.

Bilingual instructional aide. An aide who is fluent in both English and the primary language of the limited-English speaking pupil or pupils in a bilingual multicultural program. Such an aide shall be familiar with the cultural heritage of the limited-English speaking pupils in the bilingual classes to which he/she is assigned.

Bilingual Multicultural Education. A process which uses two languages, one of which is English, as mediums of instruction for the same pupil population in a well organized program which includes the study of the history and cultures associated with the mother tongues.

Bilingual teacher. A teacher who is fluent in the primary language and familiar with the cultural heritage of the limited-English speaking pupils in the bilingual classroom he/she conducts.

Class profile. Records [illegible] children's progress in one place. It indicates the patterns of learning of groups

of children as well as assists the teacher in grouping and regrouping.

Classroom management system. An adopted system that identifies the performance objectives and provides an accounting system based upon determining pupil needs, teaching to those needs, and assessing whether or not the pupil learned the desired skill, knowledge or understandings. Usually a management system has a "built in" documentation system to assure that the above actually happens.

Criterion reference test. A criterion reference test is a test that is specifically designed to test whether or not a pupil has learned, or needs to learn, a specific amount of knowledge. It is constructed to determine how well a student has learned a specific lesson.

District Advisory Committe for Bilingual Multicultural Education. A committee, composed primarily of parents of participating students, which advises a district on the conduct of its bilingual education program.

Dominant language. Is a language other than English which is the language the pupil first learned or the language, which is spoken in the pupil's home.

Individual profile. Includes information about a child's progress in more than one subject area.

Individualized, diagnostic, prescriptive instruction. Is based on determining what a pupil's specific needs are, and then designing a program of instruction that will help the pupil overcome the difficulties.

Language proficiency tests. These are tests which assist staff in determining how much of a given language a child knows.

Lau vs. Nichols. On January 21, 1974, the U.S. Supreme Court unanimously ruled that the San Franciso Unified School District illegally discriminated against non-English speaking Chinese-American students by failing to provide them with equal educational opportunity. By requiring these children to be in regular English language classes, the Supreme Court, in Lau vs. Nichols, found the school district had denied them "a meaningful opportunity to participate in the public educational program." The Court in the Lau decision found that a school district's failure to provide non-English speaking students with a program to deal with their language needs is a violation of Title VI of the Civil Rights Act of 1964.

Limited English-speaking students. Students who have not developed English language skills of comprehension, speaking, reading and writing sufficiently to benefit from instruction only in English and who come from a home where a language other than English is spoken.

Mastery test. A pre/post test of twenty (20) items or less. A mastery test is derived from criterion reference tests for a given grade, level, and subject area. The pre-mastery tests determine student placement and the post mastery should demonstrate achievement growth.

Non-English speaking students. Students who communicate in a language other than English in their home and who

are unable to conduct basic conversations in English or benefit from classroom instruction in English.

Performance objective. An objective stated in such a way that it tells "who will do what" to "what extent" within "what time limitations" as measured by "what instrument."

Second language. A childs acquired second language after his dominant language.

"X" language. A language other than English.

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THREE PERSONS QUALIFIED TO OBSERVE THE PRACTICUM

- Dr. Dan A. Foster, Director, State and Federal Programs
  Hayward Unified School District
  P.O. Box 5000
  Hayward, California 94540
  (415) 881-2735

- Dr. Wayne Sorenson, Administrative Director Research and Program Development
  P.O. Box 5000
  Hayward, California 94540
  (415) 881-2655

- Ms. Merlynn Bergen, Evaluator
  7933 Belknap Drive
  Cupertino, California 95014

The above persons have been requested to submit letters to the practicum department. Their letters should be forthcoming.

Hayward Unified School District

Allen C. Bushnell
SUPERINTENDENT

Wayne L. Swenson
ADMINISTRATIVE DIRECTOR
RESEARCH AND DEVELOPMENT

Jack M. Winston
ADMINISTRATIVE DIRECTOR
CERTIFICATED PERSONNEL

Elaine Parker
CLASSIFIED PERSONNEL
DIRECTOR

Daniel A. Foster
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Joel C. Thornby
ADMINISTRATIVE DIRECTOR
SECONDARY EDUCATION

Henry J. Narbone
ADMINISTRATIVE DIRECTOR
ELEMENTARY EDUCATION

Jean M. Chambers
ADMINISTRATIVE DIRECTOR
PUPIL SERVICES

William R. Farr
MAINTENANCE & OPERATIONS
DIRECTOR

December 6, 1976

Dear Colleague,

I am in the process of developing a Bilingual Evaluation Management System for our District's Bilingual Multicultural Education program. The system consists of performance objectives K-6, Spanish, Portuguese, and English, in Reading, Mathematics, Second Language Acquisition and Multicultural Social Studies, Pre-Post Mastery tests and Criterion Reference Tests for each objective. The design is linked with our Data Processing center and students record their answers on computerized answer sheets which in turn are fed into the computer. The result is a quarterly class profile print-out for every bilingual teacher.

The system is proving to be a viable means of monitoring individual student achievement as well as establishing information necessary for longitudinal studies of participating students.

I would be interested in learning if you have a similar management system and whether or not you would be interested in this type of system should it be made available thru the Title VII Assessment and Dissemination Centers.

Thank you in advance, for your cooperation. I'd greatly appreciate your taking a few moments and completing the enclosed questionnaire.

Sincerely,

Ronald L. Sousa
Project Coordinator
Bilingual-Multicultural Education
and State and Federal Programs

22411 Amador Street, Hayward, California • P.O. Box 5000, Hayward, California 94540 • 415/881-2611

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QUESTIONNAIRE ON EVALUATION METHODS

1. Do you use a Bilingual Management System similar to the one described in the preceding memo?

YES ☐ NO ☐

If yes, describe briefly _____

_____

_____

_____.

2. May we have a copy?

YES ☐ NO ☐

3. Do you use Criterion Reference Tests for Bilingual Program Evaluation?

YES ☐ NO ☐

4. Do you use standardized tests for Bilingual Program Evaluation?

YES ☐ NO ☐

5. Are you interested in a Bilingual Management System similar to the one described in the preceding memo?

YES ☐ NO ☐

Thank you.

KINDLY RETURN TO: Ronald L. Sousa
Project Coordinator
Bilingual Multicultural Education
and State and Federal Programs
HAYWARD UNIFIED SCHOOL DISTRICT
P.O. BOX 5000
HAYWARD, CALIFORNIA 94540

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ELEMENTARY EDUCATION

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ADMINISTRATIVE DIRECTOR
PUPIL SERVICES

William R. Tarr
MAINTENANCE & OPERATIONS
DIRECTOR

September 22, 1976

Frederick A. Will
Division of Grants and Procurement Management
United States Office of Education
400 Maryland Ave., S.W. (ROB #3, Room 5910)
Washington, D.C. 20202

Dear Mr. Will,

Enclosed please find three copies of Hayward Unified School District's Final Evaluation Report for Grant No. G007507064, Project No. 403CH60039.

If you have any further questions, please do not hesitate to contact our office.

Sincerely,

Ronald L. Sousa
Project Coordinator
Bilingual Multicultural Education
and State and Federal Programs

RLS: ep

22441 Amador Street, Hayward, California • P.O. Box 5000, Hayward, California 94540 • 415/537-3500
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HAYWARD UNIFIED SCHOOL DISTRICT

BILINGUAL-MULTICULTURAL EDUCATION PROJECT

Final

Project Evaluation Report

TITLE VII

1975-1976

September 1976

Submitted by:

Merlynn Bergen

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The Hayward Unified School District's 1975-76 Bilingual-Multicultural Education Program and the plan for its evaluation have been fully described in the interim report. That report is included here as Appendix A and will be referred to as needed so that this final report will not be overly long. Pages 1-6 of Appendix A describe the participants by number of years in the program, school, grade, and bilingual status. There were approximately 726 students (48% male, 52% female) participating during the year. Not all these students were in attendance all year; the totals in the tables of this report reflect these fluctuations. Classes provided either Spanish-English (six schools, 22 classrooms) or Portuguese-English (one school, four classrooms) bilingual instruction.

The final report will include only new data pertinent to the objectives laid out in the interim report (Appendix A, pp. 12-50). These objectives are of two sorts: instructional objectives to be mastered by each student and related directly to curricular concerns; and program objectives related to the four program components--instruction, materials, staff, and parent and community.

Each grade level, instructional language, and subject matter area had associated with it multiple objectives for each child to meet. From these objectives a sample was chosen for monitoring and evaluation purposes. These objectives were spelled out in the appendix of the interim report.

A summary of the program objectives for each component follows:

1975-1976 PROGRAM OBJECTIVES

1.0 INSTRUCTION COMPONENT

OBJECTIVE 1.1: STUDENTS IN THE BILINGUAL PROGRAM WILL MAINTAIN A ONE MONTH GAIN FOR ONE MONTH OF INSTRUCTION IN READING AND MATHEMATICS.

OBJECTIVE 1.2: TWENTY MINUTES (GRADES K, 1, 2), THIRTY MINUTES (GRADES 3, 4), AND FORTY MINUTES (GRADES 5, 6) OF STRUCTURED SECOND LANGUAGE LEARNING WILL BE PROVIDED DAILY.

OBJECTIVE 1.3: INDIVIDUALIZED AND SMALL GROUP INSTRUCTION WILL BE USED AS AN INSTRUCTIONAL STRATEGY IN EVERY CLASSROOM.

OBJECTIVE 1.4: BOTH LANGUAGES (EITHER SPANISH-ENGLISH OR PORTUGUESE-ENGLISH) WILL BE HEARD SPOKEN BY THE TEACHER, AIDE, AND/OR STUDENTS THROUGHOUT THE SCHOOL DAY (OR CLASS PERIOD).

OBJECTIVE 1.5: ENGLISH READING AND LANGUAGE MECHANICS SCORES WILL INCREASE BETWEEN OCTOBER AND MAY FOR STUDENTS WITH OTHER LANGUAGE INTERFERENCE (I.E., THOSE WHOSE PARENTS SPEAK PORTUGUESE OR SPANISH ONLY AND THOSE WHOSE PARENTS ARE BILINGUAL).

OBJECTIVE 1.6: STUDENTS WILL SHOW EVIDENCE OF INCREASED ACHIEVEMENT IN BOTH BILINGUAL AND NON-BILINGUAL CLASSROOMS OVER THE SCHOOL YEAR (JR. HIGH OBJECTIVE).

OBJECTIVE 1.7: STUDENTS WILL DEVELOP A DESIRE TO PARTICIPATE IN FUTURE BILINGUAL-MULTICULTURAL CLASSES (JR. HIGH OBJECTIVE).

OBJECTIVE 1.8: STUDENTS WILL SEEK INTERACTION WITH PROGRAM TEACHERS AND STAFF BEYOND THE NORMAL CLASSROOM RELATIONSHIP (JR. HIGH OBJECTIVE).

2.0 MATERIALS ACQUISITION AND DEVELOPMENT COMPONENT

OBJECTIVE 2.1: A SYSTEMATIC MONITORING OF THE USE OF MATERIALS PURCHASED THROUGH BILINGUAL FUNDS WILL SHOW THAT THEY ARE BEING USED ON A REGULAR BASIS BY ALL PROGRAM TEACHERS AND AIDES.

OBJECTIVE 2.2: A VARIETY OF TYPES OF MATERIAL WILL BE IN USE IN THE CLASSROOMS THROUGHOUT THE SCHOOL DAY (OR CLASS PERIOD).

OBJECTIVE 2.3: DEVELOPMENT OF CURRICULUM GUIDES FOR READING, MATHEMATICS, MULTICULTURAL SOCIAL STUDIES, AND SECOND LANGUAGE LEARNING FOR EACH GRADE LEVEL AND LANGUAGE WILL COMMENCE.

3.0 STAFF DEVELOPMENT COMPONENT

OBJECTIVE 3.1: IMPLEMENTATION OF WELL-ATTENDED MONTHLY INSERVICE PROVIDING INFORMATION AND/OR IDEAS FOR USE IN THE CLASSROOM.

OBJECTIVE 3.2: TO MAKE AVAILABLE CONTINUING EDUCATION OF STAFF LEADING TO DEGREES AND CREDENTIALS THROUGH ESEA TITLE VII TRAININGSHIPS.

OBJECTIVE 3.3: GIVEN AVAILABLE FUNDS, AN EFFORT WILL BE MADE TO INVOLVE A LARGE PERCENTAGE OF THE CERTIFIED AND CLASSIFIED STAFF IN OFF-SITE STAFF DEVELOPMENT OTHER THAN I.H.E. (INSTITUTIONS OF HIGHER EDUCATION) ATTENDANCE.

4.0 PARENT AND COMMUNITY INVOLVEMENT COMPONENT

OBJECTIVE 4.1: PROVISION OF A PROGRAM FOR PARENTS THAT WILL ENABLE THOSE WHO PARTICIPATE TO ACQUIRE UNDERSTANDING OF AND SUPPORT FOR THE BILINGUAL PROGRAM.

OBJECTIVE 4.2: TO HAVE BILINGUAL PROGRAM STAFF PARTICIPATE WHENEVER POSSIBLE IN COMMUNITY MEETINGS WHICH RELATE TO BILINGUAL EDUCATION.

Classroom Instructional Objectives for Individual Students

The Criterion Reference Test (CRT) for each objective and the Mastery tests derived from them (see Appendix A, pp. 13-16) were available for K - 6 reading and math this year and these data will be presented here. The CRTs and Mastery tests for K - 6 second language and multicultural social studies in all program languages are ready for use next year. At the junior high level (grades 7 and 8) all social studies CRTs are complete as well as ESL1 (ESL2 not complete), SSL1, SSL2, SNL (grammar only, not comprehension) and level 1 and level 2 of bilingual mathematics. CRTs will be used pre- and post- because mastery tests are not yet complete.

A mastery test of 20 items or less for each subject area was given to each student at the appropriate grade level in his/her dominant language in October and May. Fall mastery testing provided data for placement of the student at the correct instructional level, and fall-spring change scores provided data on growth. These data are particularly important for Spanish- and Portuguese-dominant students who often were not given the pre-post TOBE or CTBS subscales.

Criterion reference tests, also given in the student's dominant language, were used throughout the year to monitor the meeting of instructional objectives.

Table 1 provides information about the number of students who were tested

Table 1

Percentage of Students Taking the Mastery Tests and CRTs Above, At, or Below Grade Level

Test	N	Above Grade Level	At Grade Level	Below Grade Level
Reading Mastery	617	1%	90%	9%
Math Mastery	617	1%	88%	11%
Reading CRTs	544	1%	83%	16%
Math CRTs	547	1%	84%	15%

above, at, or below grade level for both mastery tests and CRTs. The student's teacher made the decision about grade level. Most students were working at their assigned grade level, as expected in a full maintenance program.

Gain scores from the mastery test in each subject matter area and the percentage of CRTs passed during the year were the data for the evaluation of classroom instructional objectives. The Bilingual Management System described in detail elsewhere (Appendix A, pp. 16-19) was the new method used this year to collect data, score, and analyze them, and give teachers information. There were a number of problems in programming the output for the computer based system and some "getting used to" on the part of the teachers, students, and staff. The bugs have been pretty well worked out and next year only the new teachers will have to go through the occasionally painful introduction to machines. The changeover has been interesting and challenging.

When the teachers and aides were asked about the system on the end-of-the-year questionnaire, their responses were positive. Table 2 presents a summary of their responses on the pertinent items.

Table 2

Teacher Responses to Questions Concerning CRT and Mastery Test Printouts

	Poor	Average	Very Good
In terms of clarity and understanding, how would you rate the Criterion Reference Test printouts?	2%	63%	35%
In terms of clarity and understanding, how would you rate the Pre- and Post- Mastery Test printouts?	8%	42%	50%

Figure 1 shows examples of the printouts actually given the teachers for student monitoring.

BILINGUAL MULTICULTURAL CRIT. REF. TEST EVALUATION - MATHEMATICS
--LANGUAGE ENGLISH GRADE 3

		OBJ1	OBJ2	OBJ3	OBJ4	OBJ5	OBJ6	OBJ7	OBJ8	OBJ9	OBJ10
97[illegible]	524213	4/5	3/5	4/5	5/5	5/5	4/5	5/5	0/5	0/0	0/0
4[illegible]	524213	5/5	5/5	5/5	5/5	5/5	5/5	5/5	0/5	0/0	0/0
4[illegible]	524213	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/0	0/0
627[illegible]	K524213	5/5	5/5	5/5	5/5	0/5	3/5	5/5	0/5	0/0	0/0
14[illegible]	524213	5/5	5/5	5/5	3/5	0/5	5/5	0/5	4/5	0/0	0/0
411[illegible]	S524213	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	0/0	0/0
1107[illegible]	524213	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/0	0/0

BILINGUAL MULTICULTURAL MASTERY TEST EVALUATION - MATHEMATICS PRE-TEST

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	TOTAL
--LANGUAGE SPANISH		GRADE 3																				
1432[illegible]	OB 83223	C		C				-			C		C	C		C						7 16
13023[illegible]	J 83223		C	C		C																3 16
16646[illegible]	83223	C	C			C	C	C	C				C	C								8 16
9231[illegible]	83223	C	C				C		C													4 16
2343[illegible]	MA123223	C	C	C	C	C			C		C	C				C						9 16
19170[illegible]	M123223	C	C	C	C	C				C												6 16

BILINGUAL MULTICULTURAL MASTERY TEST EVALUATION - MATHEMATICS PRE-TEST

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	TOTAL
--LANGUAGE ENGLISH		GRADE 1																				
1472[illegible]ALLARD	61111	C	C	C		C						C	C									6 20
13452[illegible]	61111	C	C	C	C	C	C					C	C									8 20
14[illegible]	G 61111	C				C						C	C	C								5 20
1651[illegible]	61111	C	C	C	C	C	C	C				C	C	C		C	C			C	C	14 20
1332[illegible]	61111	C	C	C								C	C	C	C							7 20
1559[illegible]	61111	C	C	C	C							C	C									6 20
1567[illegible]	61111	C	C	C	C	C		C				C	C	C				C				10 20
13523[illegible]	61111	C					C					C	C					C				5 20
1352[illegible]	61111	C	C	C	C					C	C			C		C						8 20
1374[illegible]	61111	C	C		C	C		C				C										6 20
13197[illegible]	61111			C				C	C						C	C						5 20
1533[illegible]	61111	C	C	C	C	C	C					C	C	C	C	C	C					12 20
1572[illegible]	61111	C					C					C	C									4 20
1512[illegible]	61111	C	C	C	C			C	C			C	C		C		C					10 20

Fig. 1. Examples of CRT and Mastery Test Printouts

Mastery Testing. Table 3 presents the reading mastery test data by grade and language. Each grade level and language had a unique set of

Table 3

Percent Correct on Reading Mastery Tests by Grade and Language

Grade	English		Spanish		Portuguese	
	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
K n=114	47%	90% n= 78	34%	78% n= 33	41%	82% n= 3
1 n=123	45%	88% n= 90	35%	69% n= 25	33%	64% n= 5
2 n= 86	50%	82% n= 62	31%	60% n= 22	58%	97% n= 2
3 n= 89	59%	76% n= 69	53%	75% n= 13	46%	69% n= 7
4 n= 57	50%	70% n= 40	50%	68% n= 16	65%	77% n= 1
5 n= 16	84%	85% n= 8	57%	83% n= 5	69%	89% n= 3
6 n= 6	67%	81% n= 5	75%	88% n= 1		n= 0

associated objectives, therefore each cell represents a different test with a varying number of items. Only students who took both the pretest and post-test are included in this summary. Increases in percent correct over the year were substantial in most cases. There were cases where the teachers gave too hard or too easy a test to a student, creating floor and ceiling effects that influenced the overall picture. Next year, with data from spring testing and CRT records available, the decision of which instructional grade level to use will be much easier.

Table 4 presents the same data for math. Again, the pre/post increases

Table 4

Percent Correct on Math Mastery Tests by Grade and Language

Grade	English		Spanish		Portuguese	
	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
K n=108	53%	93% n= 75	38%	87% n= 31	50%	93% n= 2
1 n=116	48%	78% n= 88	42%	67% n= 23	36%	55% n= 5
2 n= 85	60%	91% n= 59	53%	76% n= 22	66%	96% n= 3
3 n= 94	49%	75% n= 75	39%	62% n= 13	47%	90% n= 6
4 n= 64	44%	68% n= 44	42%	76% n= 18	75%	63% n= 2
5 n= 14	40%	62% n= 7	41%	61% n= 4	63%	57% n= 3

are consistent. Recall that the mastery test items are a sample of the CRT test items for each language, grade, and subject matter area, so these data are reflecting the increase in knowledge and skills relevant to the instructional objectives.

The overall pre/post correlations and difference scores were significant for reading ($r = .37$; $t = 30.0$; $p < .001$) and for math ($r = .42$; $t = 29.9$; $p < .001$). There was no significant difference in change scores for males and females.

CRTs. It was expected that 75 percent of the students would meet the objectives at their instructional level with at least 75 percent accuracy as measured by the appropriate CRTs. This criterion proved to be unrealistically high because of (1) the development and introduction of the new management system with its attendant problems, (2) the complete revision of the CRTs, and (3) the development of the mastery tests. The full monitoring and evaluation program was not up and running until midyear. Therefore, the data are presented for both the original criterion and a revised criterion: 75 percent of the students will meet 75 percent of the objectives with 75 percent accuracy. Tables 5A through 5F present the data showing the percentage of students who passed all or 75 percent of the objectives in reading and math by grade and language dominance.

When the less stringent criterion was used, the results were more in line with the objective. Everyone was at a disadvantage this year getting the management system in gear and the difficulties were reflected in these data more than any other. Teachers have to have time to give the necessary CRTs individually or in small groups throughout the year. Mastery testing and standardized testing was done at specified times early and late in the year when other activities were temporarily laid aside. Next year the

Table 5A

Percentage of Students who Passed All or 75% of the Reading Objectives by grade--ENGLISH

Grade	Number of Students	Number of Objectives	All Objectives Passed	75% of Objectives Passed
K	95	8	30%	64%
1	90	6	59%	78%
2	72	9	26%	49%
3	79	9	32%	65%
4	30	8	10%	47%
5	9	6	100%	100%
6	6	7	17%	67%

Table 5B

Percentage of Students who Passed All or 75% of the Reading Objectives by grade--SPANISH

Grade	Number of Students	Number of Objectives	All Objectives Passed	75% of Objectives Passed
K	47	8	23%	51%
1	33	4	18%	33%
2	25	8	0%	12%
3	13	9	0%	31%
4	16	8	19%	38%
5	5	6	0%	60%
6	1	7	0%	100%

Table 5C

Percentage of Students who Passed All or 75% of the Reading Objectives by grade--PORTUGUESE

Grade	Number of Students	Number of Objectives	All Objectives Passed	75% of Objectives Passed
K	3	8	0%	33%
1	7	5	0%	0%
2	2	8	0%	50%
3	7	9	0%	71%
4	1	7	0%	0%
5	3	6	33%	67%
6	0	0	-	-

Table 5D

Percentage of Students who Passed All or 75% of the Math Objectives by grade--ENGLISH

Grade	Number of Students	Number of Objectives	All Objectives Passed	75% of Objectives Passed
K	95	5	50%	78%
1	90	10	8%	36%
2	77	9	22%	55%
3	84	8	16%	54%
4	32	8	16%	53%
5	8	10	0%	50%
6	1	4	100%	100%

Table 5E

Percentage of Students who Passed All or 75% of the Math Objectives by grade--SPANISH

Grade	Number of Students	Number of Objectives	All Objectives Passed	75% of Objectives Passed
K	47	5	43%	62%
1	27	10	4%	19%
2	25	9	12%	44%
3	16	8	19%	50%
4	18	8	11%	50%
5	4	10	0%	75%
6	0	4	-	-

Table 5F

Percentage of Students who Passed All or 75% of the Math Objectives by grade--PORTUGUESE

Grade	Number of Students	Number of Objectives	All Objectives Passed	75% of Objectives Passed
K	3	5	0%	33%
1	6	10	0%	0%
2	3	9	0%	100%
3	6	8	17%	83%
4	2	8	0%	100%
5	3	10	0%	0%
6	0	4	-	-

teachers' ability to organize their monitoring efforts will again be challenged because in every classroom there will be four subject areas, two languages and several grades to integrate into a systematic CRT program. However, it is fully expected that there will be few classrooms where the less stringent criterion will not be met and it is recommended that this criterion of 75 percent of the students meeting 75 percent of the objectives at 75 percent accuracy be adopted across the board.

Tables 6A and 6B show the percentage of reading and math objectives, respectively, that were passed by grade and language. These tables give a composite view of the entire program rather than focusing on individual students, as was the case earlier. Only data from students who were in the program all year were included. When viewed from this perspective, the program outcome data came close to the revised objective. When all grades and languages were combined, 74 percent of the reading objectives were passed (N=469). When data for all students were included, the percentage was much the same

Table 6A

Percentage of Reading Objectives
Passed by Grade and Language

Grade*	N**	Language		
		English	Spanish	Portuguese
K	119	77% N=81	69% N=35	54% N=23
1	118	85% N=84	56% N=28	67% N=6
2	87	71% N=67	49% N=18	63% N=2
3	83	79% N=64	65% N=17	82% N=7
4	40	65% N=27	71% N=12	71% N=1
5	16	100% N=8	77% N=5	83% N=3
6	6	86% N=5	86% N=1	N=0
Total	469			

* Grade level of CRTs

** Only students who have been in the program all year are included

Table 6B

Percentage of Math Objectives
Passed by Grade and Language

Grade*	N**	Language		
		English	Spanish	Portuguese
K	122	86% N=81	78% N=38	60% N=3
1	109	64% N=83	59% N=21	42% N=5
2	90	77% N=66	66% N=21	82% N=3
3	81	71% N=62	71% N=13	79% N=6
4	42	71% N=26	71% N=14	81% N=2
5	8	88% N=4	80% N=4	N=0
6	0	N=0	N=0	N=0
Total	452			

* Grade level of CRTs

** Only students who have been in the program all year are included

(N=524; 73%). Twenty-five students (21 English dominant, 4 Spanish) completed all the objectives at their original grade level and went on to pass an average of 43 percent of the objectives at the next higher grade level. In math, the same pattern was seen--73 percent of the objectives passed overall (N=452) and 73 percent when all student data were included (N=516). Twenty-six students (19 English dominant; 7 Spanish) went on to CRTs at the next grade level, passing an average of 39 percent of the objectives.

Analyses of the data using several student characteristics were performed. Table 7 provides a comparison of the mean percentage of reading and math

Table 7

Mean Percentage of Reading and Math Objectives
Passed by Language Dominance

Language	Mean Percentage of Objectives Passed			
	N	Reading	N	Math
English	367	77%	358	75%
Spanish	134	63%	138	87%
Portuguese	23	73%	20	66%

objectives passed by dominant language. Students were given all CRTs in their dominant language. The percentages were not significantly different from one another. English dominant students tended to do equally well in both subject areas, whereas Spanish dominant students passed more math objectives and Portuguese dominant students passed more reading objectives.

Students were placed in five language status categories using teacher rating (see Appendix A, p. 23). These categories were combined to produce a category of fluency. Monolingual English and Limited second language became "Fluent English speakers;" Limited English and Bilingual became "Limited English speakers;" and Monolingual Spanish/Portuguese became "Non-English speakers." Table 8 shows the number and percentage of students in each fluency category by grade. Table 9 presents the percentage of reading and math objectives passed by fluency category. All students did well in math, but the limited and non-English speakers passed fewer reading objectives than fluent English speakers. The proportion of reading objectives passed and the reading mastery score were positively correlated ($r = .49$, $p < .001$). In math, the correlation was much weaker ($r = .04$, $p < .19$).

Table 8

Number and Percentage of Students in Each Fluency Category by Grade

Grade	Bilingual Status			N	%
	Fluent Eng.	Limited Eng.	Non-English		
K	58	74	18	150	21%
1	55	75	10	140	20%
2	38	55	8	101	14%
3	36	61	9	106	15%
4	17	48	7	72	10%
5	9	15	5	29	4%
6	6	5	2	13	2%
7	7	30	5	42	6%
8	13	44	1	58	8%
Totals	239	407	65	711	100%

Table 9

Percentage of Reading and Math Objectives
Passed by Language Fluency of the Student

Fluency Category	Reading		Math	
	N	Z	N	Z
Fluent English	181	83Z	183	76Z
Limited English	293	69Z	284	70Z
Non-English Speaker	46	65Z	45	74Z
Totals	520		512	

Program Objectives

1.0 Instruction Component

OBJECTIVE 1.1: STUDENTS IN THE BILINGUAL PROGRAM WILL MAINTAIN A ONE-MONTH GAIN FOR ONE MONTH OF INSTRUCTION IN READING AND MATHEMATICS.

The Test of Basic Experiences (TOBE) was given to kindergartners and the Comprehensive Tests of Basic Skills (CTBS-Form S) to first through eighth graders on a pre-post basis. The Nelson Reading Test was given at Winton Junior High School in January as part of the district testing program. Non-English speakers were not given these tests in the fall, but most did take them in the spring (per district policy). For such students, spring to spring gains will be evaluated next year; this year, the emphasis has been on gains in the mastery tests which were given in their dominant languages.

Another management goal this year has been to set up a data base from which to launch a longitudinal study of the progressive effectiveness of the bilingual program. Change scores from fall to fall or spring to spring and across years will be available for analysis as well as the more traditional fall to spring gains. With the data stored in retrievable form each year, such analyses become possible. Trends in the bilingual program data can then be compared with the district as a whole, as well as with district students who participate in other federal and state-funded programs.

It is recommended that next year and for all longitudinal evaluation analyses, percentiles and grade equivalence scores give way to standard scale scores. There is a general movement by evaluation planners to make this helpful change. Using the CTBS as an example, a few comments of how the standard scale works and why it is valuable follow.

CTBS standard scales scores are a single scale of standard scores which can be used with all levels and any form of the CTBS. The standard score is a three-digit number ranging from approximately 100 to 900. It is an equal unit scale, i.e., the difference between two successive scores is the same over all parts of the scale. Using standard scores, one can chart growth and plot trends in achievement from grade 1 through 12. The standard scores for the TOBE are on a different scale (1 to 100), but the concept works the same way.

Tables 10A and 10B present the data pertinent to Objective 1.1. The students' grade equivalence scores on the average were close to the appropriate

Table 10A

Percentile and/or Grade Equivalence
Change in Reading Scores

Test	Grade	Pretest	Posttest	Change
TOBE	K	44%	82%	+38%
CTBS-B	1	1.4 GE	1.8 GE	+.4 GE
CTBS-C	2	2.0 GE	2.5 GE	+.5 GE
CTBS-1	3-4	3.2 GE	3.7 GE	+.5 GE
CTBS-2	5-6	4.3 GE	5.5 GE	+1.2 GE

Table 10B

Percentile and/or Grade Equivalence
Change in Math Scores

Test	Grade	Pretest	Posttest	Change
TOBE	K	42%	73%	+31%
CTBS-B	1	1.2 GE	2.1 GE	+.9 GE
CTBS-C	2	1.8 GE	2.7 GE	+.9 GE
CTBS-1	3-4	3.2 GE	3.6 GE	+.4 GE
CTBS-2	5-6	4.4 GE	5.0 GE	+.6 GE

grade levels and reasonable gains were made. Using standard scores, the t tests performed on the pre-post data were all significant and the pre-post scores highly correlated ($r = .96$ for reading and $r = .97$ for math). For the 375 students who had pre-post scores for reading, $t = 16.68$; $p < .001$.

In math there were 368 students and $t = 18.74$; $p < .001$. The gains for reading and math were not significantly different ($t = 1.01$; $p < .31$) and the correlation between reading and math scores was much less than for pre-post scores within each area ($r = .44$).

Standard score gains were used in all the analyses related to subject characteristics. Approximately 60 percent of the total population were represented in the pre-post gain scores. Fifty-eight took the reading pretest only and 137 the posttest only (recall that many non-English speakers are required to take only the posttest). For math, there were 62 pretest only students and 145 posttest only students. Most of the non-English speakers took the CTBS posttest only, but a majority (75%) of the kindergarteners took both the pre- and post-TOBE which was given in the child's dominant language. There were 137 (24%) of the 1-6 graders who took only the CTBS posttest. These were:

33% of the bilingual students
25% of the limited English
66% of the monolingual Spanish/Portuguese

In terms of language dominance, the following percentages of students took only the CTBS/TOBE posttest, but both pre- and post- mastery test:

	Reading	Math
English dominant	7%	6%
Spanish dominant	45%	46%
Portuguese dominant	70%	70%

It is clear that mastery and CRTs were the more important evaluation tools for the non-English dominant students. The data parallel to those in Tables 10A and 10B for pre- or posttest only students are presented in Table 11. Their scores were well within the range of the other students. Next year spring to spring gain scores will be available for these non-English speaking students.

Table 11

Percentile or Grade Equivalence Scores for Students who Took Pretest or Posttest Only

Test	Grade	Reading		Math	
		Pretest Only	Posttest Only	Pretest Only	Posttest Only
TOBE	K	50% n=16	76% n=15	42% n=17	69% n=15
CTBS-B	1	1.5 GE n=14	1.7 GE n=36	1.1 GE n=15	1.8 GE n=34
CTBS-C	2	2.2 GE n= 8	2.1 GE n=53	2.6 GE n= 9	3.1 GE n=48
CTBS-1	3-4	2.8 GE n=17	3.1 GE n=28	3.1 GE n=19	3.4 GE n=10
CTBS-2	5-6	2.9 GE n= 3	3.7 GE n= 5	2.6 GE n= 2	5.2 GE n=12

Males and females were not significantly different in number or mean gain for either reading or math. The mean standard score gain was nearly the same for the two subject areas (TOBE: reading = 14.2; math = 12.8; and CTBS: reading = 47.2; math = 47.4). The number of students and the mean TOBE or CTBS standard score gain by subject characteristics appear in Tables 12 through 14. No significant differences by language dominance or fluency were found. Very few Portuguese dominant students were given both the pre- and posttest, and of the Spanish dominant students, only the kindergartners (TOBE) were well represented. Grade level differences were apparent. First and second graders made greater gains than third to sixth graders. Kindergartners taking TOBE were on a different standard score scale, and made fairly substantial gains.

Table 12

Mean Standard Score Gain for Reading and Math by Language Dominance

Dominant Language	Reading		Math	
	TOBE	CTBS	TOBE	CTBS
English	14.0 n=82	46.3 n=229	12.7 n=76	47.5 n=223
Spanish	15.4 n=34	58.5 n=19	13.8 n=31	41.1 n=16
Portuguese	7.3 n= 3	43.7 n= 3	6.0 n= 3	84.5 n= 2

Table 13

Mean Standard Score Gain for
Reading and Math by Language Fluency

Language Fluency	Reading		Math	
	TOBE	CTBS	TOBE	CTBS
Fluent English Speaker	14.7 n=43	46.7 n=114	12.7 n=37	51.6 n=113
Limited English Speaker	15.0 n=62	47.6 n=137	13.1 n=59	43.7 n=128
Non-English Speaker	9.7 n=13	- n= 0	12.0 n=13	- n= 0

Table 14

Mean Standard Score Gain for
Reading and Math by Grade

Grade	Test	Reading	Math
K	TOBE	14.2 n=119	12.8 n=110
1	CTBS-B	61.2 n= 78	62.0 n= 85
2	CTBS-C	54.5 n= 48	54.1 n= 55
3	CTBS-1	38.8 n= 63	34.6 n= 50
4	CTBS-1	27.3 n= 41	31.0 n= 32
5	CTBS-2	50.8 n= 18	32.4 n= 16
6	CTBS-2	10.0 n= 4	-9.0 n= 4

The CTBS testing for Winton Junior High will be discussed under Objective 1.6. At Winton, the Nelson Reading test (Form B) was given in January to all students, except those in English as a Second Language (ESL) classes. Seventh graders (N = 29) had a mean Nelson total score of 63.9 and a corresponding grade equivalence (GE) of 5.3. This can be compared with the mean of 74.1 (GE = 6.0) for the total Winton seventh grade population. The eighth grade mean was 70.9 (GE = 5.7; N = 48), compared with the total eighth grade

Winton population mean of 85.2 (GE = 7.3). The seventh grade bilingual students were closer to their peers than the eighth graders. However, the 40 bilingual eighth graders who had scores for 1975 and 1976 showed the following significant mean gains over last year:

Vocabulary	Comprehension	Total
4.15	2.95	7.05
t=3.76	t=3.24	t=3.24
$p < .001$	$p < .002$	$p < .001$

This was Winton's first year of involvement in the bilingual program. It will be of great interest next year to compare these gains with those of this year's seventh graders after they have had a full year of bilingual instruction.

OBJECTIVE 1.2: TWENTY MINUTES (GRADES K, 1, 2), THIRTY MINUTES (GRADES 3, 4), AND FORTY MINUTES (GRADES 5, 6) OF STRUCTURED SECOND LANGUAGE LEARNING WILL BE PROVIDED DAILY.

The Classroom Observation instrument used to measure this objective has been described in detail in the interim report (Appendix A, pp. 24 and 25). The Program Assistant for Evaluation made two 30-minute observations per classroom during the year. These observations were scheduled using a random sampling technique. Data from the observations were used for a number of program objectives. There were difficulties in ascertaining the extent to which this objective was met because the observer was in the classroom during second language instruction only by chance. This year 32 percent of the total observation time was during Language Arts instruction. Next year the CRTs for second language objectives will be available to monitor the results of second language instruction. It is recommended that teachers be queried regarding their second language instruction time, and that the Program Assistant for Evaluation be in each classroom often enough to be aware of the time spent in this way.

OBJECTIVE 1.3: INDIVIDUALIZED AND SMALL GROUP INSTRUCTION WILL BE USED AS AN INSTRUCTIONAL STRATEGY IN EVERY CLASSROOM.

Use of the Classroom Observation instrument yielded the data summarized in Table 15. It is clear that this objective has been met, for the individualized and small group instruction strategy was observed the majority of the time.

Table 15

Percentage of Total Observation Time* By Group Size

	Whole Class	Small Group	Individual Instruction
Teacher	25%	42%	25%
Aide	3%	35%	20%

*Total Time = 1320 minutes

Teacher and aid activity seen during classroom observations were as follows (in percentage of total observation time):

Activity	Teachers	Aides
Giving instructions	65%	48%
Managing	33%	16%
Disciplining	7%	1%
Grading	2%	0%
Other	3%	14%

Lesson plans for the day were available 57 percent of the time during observations.

OBJECTIVE 1.4: BOTH LANGUAGES (EITHER SPANISH-ENGLISH OR PORTUGUESE-ENGLISH) WILL BE HEARD SPOKEN BY THE TEACHER, AIDE, AND/OR STUDENTS THROUGHOUT THE SCHOOL DAY (OR CLASS PERIOD).

This objective was measured during classroom observations. Table 16 presents the percentage of time, over all observations, that the three languages were heard in the classroom. Much of the time both languages (English-Spanish or English-Portuguese) were being spoken during the three-minute period the observer used to check off the events observed. The data showed that the students were hearing two languages spoken by both the teacher and aid throughout the school day.

Table 16

Percentage of Total Observation Time by Language Spoken

	English	Spanish	Portuguese
Teacher	76%	54%	33%
Aide	35%	35%	34%

OBJECTIVE 1.5: ENGLISH READING AND LANGUAGE MECHANICS SCORES WILL INCREASE BETWEEN OCTOBER AND MAY FOR STUDENTS WITH OTHER LANGUAGE INTERFERENCE (I.E., THOSE WHOSE PARENTS SPEAK PORTUGUESE OR SPANISH ONLY AND THOSE WHOSE PARENTS ARE BILINGUAL).

The home language environment of the student was one of the important subject factors considered in the analysis. Table 17 presents the percentage of objectives passed using this factor. Students whose parents speak only

Table 17

Percentage of Reading and Math Objectives Passed by Language Environment of the Student's Home

Language Environment	Reading		Math	
	N	%	N	%
English	228	81%	226	77%
Spanish	115	61%	120	67%
Portuguese	32	74%	23	66%
Bilingual	135	71%	133	70%
More than two languages	2	71%	2	81%
Totals	512		504	

Spanish showed generally fewer objectives passed in reading, and English speaking parents had students who passed more reading and math objectives on the average. None of the percentages was significantly different from the others, however.

In terms of standard score gains on the TOBE and CTBS, some general comments can be made (see Table 18). Students with English speaking parents gain a little more on these English-oriented standardized tests, but of the students who took both pre- and posttests and whose parents speak languages other than English, only the four students whose parents speak only Portuguese show any serious attenuation in gain scores. The 32 students with this same home language situation, however, passed as many or more of the math and reading objectives as the other students (see Table 17 again).

Table 18

Mean Standard Score Gain for
Reading and Math by Home Language Environment

Home Language Environment	Reading		Math	
	TOBE	CTBS	TOBE	CTBS
English	14.1 n=57	53.6 n=140	13.4 n=52	52.5 n=139
Spanish	14.7 n=23	46.3 n= 30	13.2 n=22	43.7 n= 25
Portuguese	10.8 n= 4	30.9 n= 12	4.0 n= 4	37.6 n= 11
Bilingual	13.8 n=32	37.3 n= 67	11.7 n=29	38.5 n= 64
More than two	28.0 n= 1	30.0 n= 1	23.0 n= 1	80.0 n= 1

At the junior high level, students whose parents speak Spanish only showed greater standard score CTBS math gains than students with bilingual or English home language environments. The eighth graders with other language interference did not differ from others in the program in the 1975-1976 Nelson Reading gains.

OBJECTIVE 1.6: STUDENTS WILL SHOW EVIDENCE OF INCREASED ACHIEVEMENT IN BOTH BILINGUAL AND NON-BILINGUAL CLASSROOMS OVER THE SCHOOL YEAR (JUNIOR HIGH OBJECTIVE).

Interest in the bilingual program students at Winton Junior High was focused on their performance in bilingual classes, but achievement in their other classes was also an important program goal. The second and fifth grading periods were used to represent fall and spring classroom grades. Students' grades were averaged separately for bilingual and non-bilingual classes. Table 19 presents the average fall and spring grades of the students. While the grades were not significantly different fall to spring, they were highly satisfactory grades for junior high students. The average cumulative g.p.a. over all classes and students at the end of the fifth grading period (April 29, 1976) was 2.87, or about a B-.

Table 19

Fall and Spring Average Grades
for Winton Junior High Students (n=87)

Bilingual Classes		Non-Bilingual Classes	
Fall	Spring	Fall	Spring
B	B-	B-	B

A number of student factors were used to describe these data more completely (see Table 20 for a description of spring grades by these factors). Some general comments can be made. Spanish dominant and non-English speaking

Table 20
Average Spring Grades for Winton Junior High
Students by Student Characteristics

Student Characteristics	N	Bilingual	Non-Bilingual
Male	45	C+	B
Female	44	B-	B
7th Grade	38	B-	B
8th Grade	51	B-	B
English Dominant	56	C+	B-
Spanish Dominant	33	B	B+
One Bil. Class	29	C+	B
Two Bil. Classes	25	C+	B-
Three Bil.Classes	21	B-	B
Four Bil.Classes	14	B	B+
Fluent English	17	B-	B
Limited English	66	C+	B
Non-English Speaking	6	B	B+

students received somewhat higher grades. Students with more bilingual classes tended to earn higher grades. Grade level or sex did not make a significant difference in spring grades.

If grades for non-bilingual classes appear in general to be somewhat higher, it should be kept in mind that most often program students were taking their basic and most difficult courses in bilingual classrooms. The bilingual program does, of course, concentrate on these essential subject areas.

The CTBS (Level 2) was given to the Winton students in the fall by the program teachers without incident. Spring testing, however, was sabotaged by the students because of their misunderstanding of the purposes of the tests. The decision to use CTBS testing next year needs to be weighed carefully against this motivational problem. Face validity was lacking except for math. The pre-post math subtest scores of the CTBS appeared to be the most valid, and were the only ones analyzed. For the 71 students who had pre- and posttest scores, the mean standard score difference was 19.03. The pre-post scores were moderately correlated ($r = .55$), and the t test of the difference was significant ($t = 2.55$; $p < .01$). Males made higher average gains (25.18 versus 13.75 for females), and seventh graders showed greater mean gains (25.77 versus 14.45 for eighth graders). The 26 Spanish dominant students made greater mean gains (26.04) than the 44 English dominant students (15.32)

OBJECTIVE 1.7: STUDENTS WILL DEVELOP A DESIRE TO PARTICIPATE IN FUTURE BILINGUAL-MULTICULTURAL CLASSES (JUNIOR HIGH OBJECTIVE)

Junior high students make their own choices regarding continued participation in program classes. Requests for transfers out of the program were relatively infrequent. Only 10 students left the program and many of these left because they were moving away. Interest in bilingual teaching at Winton spread to the required Life Science course which began using Spanish-speaking cross-age tutors from Sunset High School, as well as Spanish language materials this year. The Learning Assistance Research Center has been determining the language dominance of all Spanish surname students at Winton. Bilingual education has clearly gained attention there this year.

Data available next September showing which seventh grade students elect to remain in the program in eighth grade will be reported in the 1976-77

interim report. As for the eighth graders, preliminary Sunset High School program information showed that students from the bilingual program at Winton almost without exception included in their program at least one of the bilingually-oriented courses that Sunset offers (English as a Second Language, Spanish, Spanish as a Native Language, and Mexican-American studies).

Students register interest at the junior high level by their attendance at classes. The months of October and April were chosen to represent fall and spring attendance. Students averaged 1.3 days absent in October, 1.8 in April, and 3.1 for the two months combined. These means represent high attendance for junior high students. Table 21 presents the absence data broken down by student characteristics. Males and females showed much the same school attendance. Seventh graders and English dominant students were more often absent, and the students with the most involvement in the program (four bilingual classes) had the highest attendance.

Table 21

Mean Days Absent for October and April by Student Characteristics (N=90)

Student Characteristics	N	Mean Days Absent
Male	46	3.11
Female	44	3.18
7th Grade	38	3.71
8th Grade	52	2.73
English Dominant	57	3.65
Spanish Dominant	33	2.27
One Bil. Class	29	3.03
Two Bil. Classes	26	4.11
Three Bil. Classes	21	3.10
Four Bil. Classes	14	1.64

OBJECTIVE 1.8: STUDENTS WILL SEEK INTERACTION WITH PROGRAM TEACHERS AND STAFF BEYOND THE NORMAL CLASSROOM RELATIONSHIP (JUNIOR HIGH OBJECTIVE).

The planned log of teacher-student contacts never materialized. Observation on the part of the program evaluation staff indicated that the three bilingual teachers at Winton were personable and highly involved with their students. During the school year one of them moved into the Winton community and significantly increased his out-of-school contact with students.

2.0 Materials Acquisition and Development Component

OBJECTIVE 2.1: A SYSTEMATIC MONITORING OF THE USE OF MATERIALS PURCHASED THROUGH BILINGUAL FUNDS WILL SHOW THAT THEY ARE BEING USED ON A REGULAR BASIS BY ALL PROGRAM TEACHERS AND AIDES.

Many of the purchased bilingual materials are housed at the Bilingual Resource Center at Sequoia School. The Center was staffed with a full-time resource center aide. Program teachers and aides checked out materials during the year for classroom use and the Center aide kept a record of this use. Overall 890 items were checked out by the 22 teachers/aides. The mean number of items checked out was 40.5. Teachers who were teaching in the bilingual program for the first time this year checked out nearly twice as many materials, on the average, as those who have been in the program longer. Table 22 indicates the mean and median number of materials checked out by category. Reading and audio-visual materials were the most generally popular. Teachers and aides were enthusiastic and positive about the Center. On the end-of-the-year questionnaire 74 percent said the Resource Center service was very good and commented specifically on the fine work of the aide who staffed it this year.

Use of materials that were normally kept in the classroom was assessed by the Program Assistant for Evaluation when she made her classroom observations. Table 23 presents data on the number of times specific materials were observed in use during classroom observations.

Table 22

Mean and Median Number of Bilingual Resource Center Materials Checked Out by Classroom Teachers (N=22)

Category	Mean	Median	% of Teachers Using Category Materials
Reading	6.0	5.5	86%
Math	3.1	2.5	77%
Language Development	3.2	2.5	77%
Social Studies and Science	2.1	1.6	77%
Library	12.1	2.8	82%
ESL, SSL, FSL	1.9	.3	41%
Audio Visual	8.5	7.5	77%
Manual Arts	.2	.1	14%
Music	.4	.1	23%
Reference	2.9	.5	50%

Table 23

Bilingual Materials in Use during Classroom Observations

	Category	Title	No. Times Observed
SPANISH	Reading	Victoria	1
		Tito	2
		Preparandose para Leer	2
		Mira y Lee	5
		Lee y Trabaja	4
		Trabaja y Aprende	3
		La Ciudad	2
		Senda 1	1
		Senda 2	2
		Senda 3	3
		Senda 4	2
		Buenos Amigos	2
	Spanish Language Development	S. M. Lenguaje	3
	Second Language J.H.	Ingles Objetivo Moderno	1
	Mathematics	Houghton Mifflin	6
		Addison Wesley	1
		Silver Burdett	2
		Repaso Matemático	2
		Continental Press Dittos	1
	Multicultural Social Studies	Naturaleza y Vida Social	1
		América y Sus Riquezas	1
		Viajaros por America	1
		América que Hermosa Eres	1
PORTUGUESE	Reading	Alegria, Alegria Series	1
		Pom Pom, Meu Gatinho	1
		Varanda e Quintal	1
		Gente Ousada	1
		O Sonho de Talita - leituras Complementares	1
	Portuguese Langu Development	--	-
	Mathematics	A Sabadinho	1

OBJECTIVE 2.2: A VARIETY OF TYPES OF MATERIAL WILL BE IN USE IN THE CLASSROOMS THROUGHOUT THE SCHOOL DAY (OR CLASS PERIOD).

The Classroom Observation data relevant to this objective appear in Table 24. The variety expected was seen. Audio-visual and tapes were less often observed in use, but manipulatives and games were relatively often seen. Teachers were evidently presenting their material in an interesting variety of modes.

Table 24

Percentage of Total Observation Time* by Types of Curriculum Materials

Types of Curriculum Materials	Percentage of Observation Time
Books	35%
Workbooks	34
Dittos	35
Manipulatives and Games	24
Tapes	1
Audio-Visual	8
Paper/Pencil	22
Quizzes/Exams	5
Other	16

*Total Time = 1320 minutes

OBJECTIVE 2.3: DEVELOPMENT OF CURRICULUM GUIDES FOR READING, MATHEMATICS, MULTICULTURAL SOCIAL STUDIES, AND SECOND LANGUAGE LEARNING FOR EACH GRADE LEVEL AND LANGUAGE WILL COMMENCE.

During the year a curriculum "miniguide" for reading (K - 6) was completed. Also a miniguide for multicultural social studies (K - 8), including skills and content but no classroom activities, was completed. Both of these are currently in press and will be available for use next September.

3.0 Staff Development Component

OBJECTIVE 3.1: IMPLEMENTATION OF WELL-ATTENDED MONTHLY INSERVICE PROVIDING INFORMATION AND/OR IDEAS FOR USE IN THE CLASSROOM

Table 25 lists the ten inservice meetings provided for the program staff this year. More complete information on inservice appears in Appendix A, (pp. 38-41). Attendance at inservice was excellent. Inservices five and six were concurrent. They all had a mean rating of average or above and some were very postively received (e.g., Olguin and Thonis). These data came from the workshop appraisal form completed after every inservice by those attending (Appendix A, p. 40). An inservice implementation questionnaire (Appendix A, p. 40) was completed at every inservice relevant to the previous inservice program. Teachers and aides were asked to describe classroom implementation of inservice information. Table 26 is a summary of these implementation

Table 25

Mean Teacher (T) and Aide (A)
Ratings of Inservice Meetings

Inservice		N	Workshop*	Speaker*	Topic*
1. Alston	T	20	4.06	4.55	4.21
	A	19	3.93	4.56	4.33
2. Bergen	T	22	3.38	3.70	3.70
(Evaluation)	A	22	4.16	4.21	4.16
3. Wollam, Alvarez	T	23	4.52	4.57	4.62
	A	21	4.53	4.64	4.63
4. Olguin	T	24	4.52	4.96	4.59
	A	15	4.93	5.00	4.67
5. Thonis	T	21	4.48	4.67	4.57
	A	18	4.89	4.89	4.89
6. Rosa	T	4	3.00	3.00	3.00
	A	3	3.33	3.33	3.67
7. Curry	T	22	3.73	3.81	4.10
	A	19	3.78	3.74	3.79
8. Kadeau	T	24	4.71	4.83	4.83
	A	23	4.57	4.57	4.52
9. Moesser	T	13	4.58	4.69	4.43
	A	10	4.60	4.60	4.40
10. Bergen	T	26	3.60	3.69	3.73
(Evaluation)	A	15	3.73	3.87	3.73

*Rating Scale: 1 = Poor; 2 = Below Average; 3 = Average; 4 = Above Average; 5 = Outstanding

Table 26

Inservice Implementation and Tally

Inservice	Date	Implementation and Tally
4. Olguin	Oct	1. Low voice level and intonation (13) 2. Eye contact (5) 3. Establishing rapport with children of different ethnic groups (11) 4. Awareness of problem sounds in teaching Spanish or English (Emphasize) (11) 5. Evaluate child abilities 6. Explanations in language child understands best (2)
5. Thonis	Nov	1. Methodology in presentation of specific letters first in Spanish--groupings of vowels and consonants (8) 2. Metodo Eclectico (1) 3. Teaching of phrases
6. Rosa	Nov	1. No implementation 2. Was not adaptable to classroom use
7. Curry	Dec	1. Sharing dealing with Social Studies concepts 2. Used Social Studies prints for Language Arts lesson 3. Use of Language Development discussions in Social Studies and Health 4. Used ideas as core for Lang Arts unit with Social Studies integrated in the program 5. Reading group studying native Americans 6. Science unit introduced that tied in with reading 7. Reading task cards in Span/Eng in content areas on South America 8. Introduce Science lesson on birds in Lang Arts--story writing

Table 26 (continued)

Inservice	Date	Implementation and Tally
8. Nadeau	Mar	1. Methods for teaching SSL (3) 2. Using puppets for SSL (5) 3. Developing SSL materials based on suggestions presented (1) 4. Used ideas to present workshop at school 5. Changed grouping (4)
10. Evaluation	Jan	1. Testing with CRTs (18) 2. Read and interpret printouts mastery tests

reports. While inservice programs were given good ratings, the reports on implementation of what was learned were meager. This was also reflected in the teacher/aide responses on the end-of-the-year questionnaire.

	Poor	Average	Very Good
In your opinion, what was the quality of inservice activities this year?	--	57%	43%
In your opinion, how useful was the information presented in inservice activities this year?	2%	54%	44%

On the same questionnaire respondees were asked to list all the inservice sessions that he/she could still remember as well as the remembered implementation. The Thonis inservice won hands down on both questions. The Olguin and Nadeau inservicesgwere high on memorability, but not implementation.

OBJECTIVE 3.2: TO MAKE AVAILABLE CONTINUING EDUCATION OF STAFF LEADING TO DEGREES AND CREDENTIALS THROUGH ESEA TITLE VII TRAININGSHIPS.

The interim report completely covered the excellent attainment of this objective (Appendix A, pp. 38, 41-43).

OBJECTIVE 3.3: GIVEN AVAILABLE FUNDS, AN EFFORT WILL BE MADE TO INVOLVE A LARGE PERCENTAGE OF THE CERTIFIED AND CLASSIFIED STAFF IN OFF-SITE DEVELOPMENT OTHER THAN I.H.E. (INSTITUTIONS OF HIGHER EDUCATION) ATTENDANCE.

This objective was met during the year. An update of the off-site meetings, description of attendees and their ratings of the meetings appears in Table 27. Teachers and aides were asked to respond to the question, "How would you rate the fairness of selecting participants for bilingual conferences?" Seven % responded "poor"; 16% "average"; and 77% "very good."

Table 27

Off-Site Conferences Attended by Bilingual Program Staff

Conference	Attendees[2]	Rating[1]				
		P	BA	A	AA	O
California Coun. College Bilingual Conference	1 P/A				1	
ECE Conference, Anaheim	2 P/A				2	
Parent Bilingual Educ. Conference	3 parents	1		2		
CEEA	10 teachers, 1 adm., 4 P/A, 6 aides			1	13	7
Para-professional Bilingual workshop	2 aides				1	1
California Bilingual Conference, Anaheim	6 teachers, 2 adm., 4 P/A, 1 parent 2 aides			2	11	2
3rd Nat'l Conf. S.F.	5 teach., 3 adm., 4 P/A, 8 aides		1	4	10	5
2nd Annual Para-Prof. Conf. Los Angeles	2 aides				1	1
5th Annual Bilingual Conf. San Antonio	4 P/A, 1 adm.			5		
Babel Cima - Viet. Wkshop	4 P/A				4	
Babel Cima - Eval. Conf.	1 P/A				1	
State Assembly Hearings	1 P/A					1

[1] P = poor, BA = below average, A = average, AA = above average
O = outstanding

[2] P/A = program assistant, adm. = administrator

4.0 Parent and Community Involvement Component

OBJECTIVE 4.1: PROVISION OF A PROGRAM FOR PARENTS THAT WILL ENABLE THOSE WHO PARTICIPATE TO ACQUIRE UNDERSTANDING OF AND SUPPORT FOR THE BILINGUAL PROGRAM.

Parents were involved in the program in many ways. The makeup of the District Advisory Committees and their meetings have been described in the interim report (Appendix A, pp. 46-48), as well as a listing of conferences attended by parents.

Ninety-eight percent of the teachers and aides reported that community feeling toward the program this year was average to very good.

A parent questionnaire was sent home at the end of the school year. The response was overwhelmingly positive. Table 28 presents the number and percentage of parent questionnaires returned. The 55 percent overall return

Table 28

Number and Percentage of Parent Questionnaires Returned for Each Program School

School	Number of Students	Number of Questionnaires Returned	Percentage of Return
Burbank	167	120	72%
Cherryland	72	34	47%
Marshall	128	64	50%
Muir	97	73	75%
Sequoia	70	17	24%
Winton Jr. High	109	47	43%
Totals	722	394	55%

is a low estimate considering that there were many siblings in the program and ordinarily only one questionnaire would be returned per household in such a situation. All questionnaire responses were anonymous. The questionnaire as it went to the parents is included in Appendix B. The tallied responses are presented in Table 29. The positive nature of the parents' responses can be seen quickly. Comments made on the questionnaires were as often positive as the quantitative responses. Some interesting highlights relative to this objective were: 87 percent felt well informed about the program; 98 percent felt welcome to visit the classroom; and 90 percent reported visiting the school during the year.

Table 29

Question Pregunta	Very Satisfied Muy Contento	Somewhat Satisfied Algo Contento	Somewhat Dissatisfied Algo Descontento	Very Dissatisfied Muy Descontento
1. Are you satisfied with the Bilingual Multicultural Program? ¿Están contentos con el Progroma Bilingüe Multicultural? Comments/Comentarios:	82%	15%	2.5%	.5%
2. How do you feel about your child's progress in English? ¿Qué piensan del progreso de su niño(a) en el estudio de inglés? Comments/Comentarios:	81%	13%	5%	1%

Table 29 (continued)

[illegible] INTERVIEW QUESTIONNAIRE ON BILINGUAL MULTICULTURAL [illegible]

Question Pregunta	Very Satisfied Muy Contento	Somewhat Satisfied Algo Contento	Somewhat Dissatisfied Algo Descontento	Very Dissatisfied Muy Descontento
3. How do you feel about your child's progress in Spanish? ¿Qué piensan del progreso de su niño(a) en el estudio de español? Comments/Comentarios:	76%	20%	3%	1%
4. Are you satisfied with the way your child's progress was reported? ¿Estan satisfechos con el sistema de reportaje del progreso de su niño? Comments/Comentarios:	78%	16%	5%	1%

	Yes Sí	No No
5. Have you been well informed about all aspects of the Bilingual Program? ¿Han estado bién informados sobre todos los aspectos del Programa Bilingüe Multicultural? Comments/Comentarios:	87%	13%
6. Did the teacher make you feel you were welcome to visit the classroom? ¿La maestra los hizo sentir bienvenidos al salón de clase? Comments/Comentarios:	98%	2%

Table 29 (continued)

	Yes Sí	No No
7. Did you visit the school this year? ¿Visitaron Uds. la escuela este año? Comments/Comentarios:	90%	10%
8. Do you want your child to continue in the Bilingual Multicultural Program next year? ¿Quieren Uds. que su hijo(a) continue en el Programa Bilingüe Multicultural el año próximo? Comments/Comentarios:	93%	7%
9. Do you feel that your child enjoyed being in a Bilingual classroom this year? ¿Creen Uds. que su niño(a) gozó en su participación en el Programa Bilingüe este año? Comments/Comentarios:	97%	3%
10. Do you feel that your child has learned about other cultures by being in a Bilingual classroom this year? ¿Creen Uds. que su niño(a) aprendió algo sobre otras culturas por su participación en el Programa Bilingüe? Comments/Comentarios:	94%	6%

OBJECTIVE 4.2. TO HAVE BILINGUAL PROGRAM STAFF PARTICIPATE WHENEVER POSSIBLE IN COMMUNITY MEETINGS WHICH RELATE TO BILINGUAL EDUCATION.

Information relative to this objective was presented in the interim report (Appendix A, p. 49)

Teacher/Aide Questionnaire

Teachers and aides were asked to complete an end-of-the year questionnaire. This questionnaire and the memo which accompanied it are included in Appendix B. Seventy-two percent of the questionnaires were returned. All responses were made anonymously. Table 30 presents the response data by question. Many of the responses have been discussed earlier. The main area of concern referred to by the teachers and aides related to the contact they had with the program director and the program assistants. The most often expressed comment was that they wanted to see more of them; they wanted them to be more available in the classrooms and as consultants. Plans are already underway to remedy what the teachers/aides correctly saw as an undesirable situation. The bulk of the program assistants' time next year will be spent in the schools.

Table 30

BILINGUAL TEACHER/INSTRUCTIONAL AIDE QUESTIONNAIRE

Question		Poor	Average	Very Good
1. How would you rate the curriculum materials available in the program this year?	1.	2%	48%	50%
Comments:				
2. How would you rate Teacher - Program Coordinator (Ron Souza) communication?	2.	20%	50%	30%
Comments:				
3. How would you rate Teacher - Program Assistant - Evaluation (Marie Trofano) communication?	3.	12%	38%	50%
Comments:				
4. How would you rate Teacher - Program Assistant - Curriculum (Pia Loftgren) communication?	4.	15%	40%	45%
Comments:				
5. How would you rate Teacher - Program Assistant - Staff Development (Alda Brothers) communication?	5.	11%	32%	57%
Comments:				
6. How would you rate the effectiveness of the Program Coordinator?	6.	12%	60%	28%
Comments:				
7. How effective was the Program Assistant for Curriculum?	7.	13%	51%	36%
Comments:				
8. How effective was the Program Assistant for Staff Development?	8.	7%	50%	43%
Comments:				
9. How effective was the Program Assistant for Evaluation?	9.	5%	58%	37%
Comments:				
10. How effective was the Resource Center service?	10.		26%	74%
Comments:				
11. In your opinion, what was the general feeling of members of the community toward the program this year?	11.	2%	52%	46%
Comments:				

Table 30 (continued)

Question		Poor	Average	Very Good
12. In your opinion, what was the general feeling of non-project staff toward the program this year? Comments:	12.	14%	63%	23%
13. How would you rate your opportunity to participate in the development and revision of Criterion Reference Tests? Comments:	13.	7%	45%	48%
14. In terms of clarity and understanding, how would you rate the Criterion Reference Test printouts? Comments:	14.	2%	63%	35%
15. In terms of clarity and understanding, how would you rate the Pre and Post Mastery Test printouts? Comments:	15.	8%	42%	50%
16. In your opinion, what was the quality of inservice activities this year? Comments:	16.	___	57%	43%
17. In your opinion, how useful was the information presented in inservice activities this year? Comments:	17.	2%	54%	44%

Question		Poor	Average	Very Good
18. In your opinion, how useful were the curriculum materials made available to you this year? Comments:	18.	2%	44%	54%
19. How would you rate the fairness of selecting participants for bi-lingual conferences? Comments:	19.	7%	16%	77%

20. List all the inservice sessions that you can still remember.

a. _____
b. _____
c. _____
d. _____
e. _____
f. _____

21. List the ways you have implemented inservice sessions that you can still remember.

Summary

Much of the emphasis this year has been on (1) developing and perfecting a system to monitor the classroom instructional objectives, and (2) writing objectives, CRTs, and mastery tests for the two remaining subject areas (second language and multicultural social studies). These two tasks were completed and next year the project will be in a position to gather specific information on the meeting of objectives in all subject areas as well as to ascertain gains over the year in each area. This year's data showed that across all grades and languages project children passed, on the average, 74% of all reading objectives and 73% of all mathematics objectives. The Bilingual Management System instituted this year provided detailed data within these overall averages to guide program improvement.

Program objectives were specified for all project components. These were met almost without exception. In the parent and community involvement component parent questionnaire responses indicated that 87% of the parents felt well informed about the program, 98% felt welcome to visit the classroom, and 90% reported visiting the school during the year.

RESOLUTION NO. 7677-1404

WHEREAS, the Congress of the United States, under the provisions of Title VII of the Elementary and Secondary Education Act of 1965, as amended by 81 Stat. 816-819 (20 USC 880b-880b-13) has provided the Hayward Unified School District the opportunity to make an application for a federal grant under the provisions of this Title for the planning of bilingual education classes and services, and

WHEREAS, this governing board desires to avail itself of the opportunity for making application for a federal grant, and

NOW, BE IT THEREFORE RESOLVED that Allan C. Bushnell of the Hayward Unified School District, its District Superintendent, is hereby authorized and directed to prepare and submit a continuation application update for participation in said program for a federal grant, and to prepare and submit any and all reports required by the State of California or the Government of the United States in the administration of said program, and

BE IT FURTHER RESOLVED that said district officer has been authorized by the governing body to file this application for and in behalf of said applicant, and otherwise to act as the authorized representative of the applicant in connection with this application.

ADOPTED by the following called vote this 7th day of March, 1977.

AYES: Hamblin, Lepore, Michaels, Wagner and Weinreb

NOES: None

ABSENT: None

Gloria Wagner

Clerk of the Board of Education of the
HAYWARD UNIFIED SCHOOL DISTRICT
County of Alameda, State of California

I hereby certify the foregoing to be a full, true, and correct copy of the resolution duly adopted by the governing board of the Hayward Unified School District of California at a regular meeting of said board held at 24411 Amador Street, Hayward, California, on March 7, ,1977.

Clerk of the Board of Education of the
HAYWARD UNIFIED SCHOOL DISTRICT
County of Alameda, State of California

II. The Model for Evaluation

Whereas the purpose of the program is the educational growth of the individual child, the purpose of evaluation is to assess the activities and outcomes of the program as a whole. Program evaluation is the process of collecting, analyzing, and interpreting information of many varieties in order to answer key questions about the success of the program and make recommendations regarding changes which may optimize such success. This latter question leads to a model of evaluation that does not reduce information to result in a "go-no go" decision regarding the program. Instead, the model allows one to move within the four components, areas of subject matter contents, classrooms and schools, subgroups of students, and so on, to measure more closely the parts of the program that have resulted in greater or lesser attainment of the objectives.

We can inquire, for example, if the program produced greater increases in achievement for students in their third bilingual year than those in their first. Does the grade level of a child make an important contribution to this difference? Another question may compare the success of enlisting participation of parents in different schools or grade levels. Still another example might be data to answer a question about differential increases in achievement in math and reading; it is possible that bilingual teaching is more easily understood by all the children in math than in reading.

Thus, the evaluation model provides a method whereby the data obtained are closely matched with the critical goals and objectives of the program.

Figure 1 shows the evaluation model. The evaluator begins with statements of the program's goals and objectives. She/he, together with the program staff, develop objectives to evaluate each component of the program,prioritizing within time and budget limits. Program goals may be reworded, combined, or split into subparts to provide concise, measurable objectives. Instruments or other measures are chosen, adapted, or developed for assessment of each objective. Whenever possible many measures for the same objective are obtained. Multiple measures provide additional evidence and assurance that the outcomes are "real." Additionally different aspects of an objective can be evaluated. For example, it is one thing to know that 60 percent of the attendees made use of information given at a particular inservice session and quite another to know that only 55 percent of the teachers attended that particular session. On the other hand,

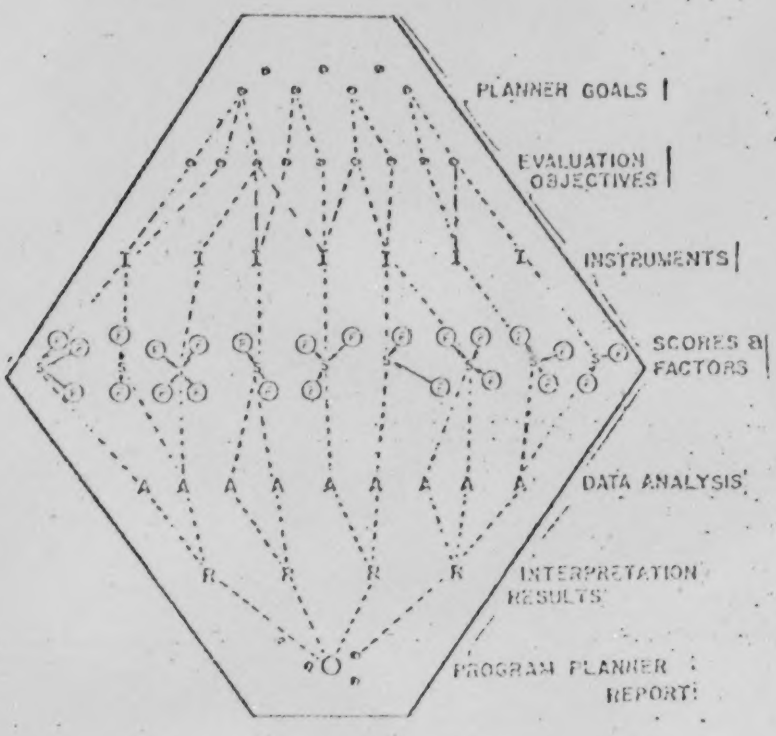

Figure 1. The Model for Evaluation

measurements can often be used to provide data relevant to more than one objective. The model includes both possibilities.

Instruments and other measurements provide quantified scores or data. Scores, in turn, are influenced by the type of program instruction, for instance, or they may be a result of other factors, such as parental involvement or grade level of the students. Some of these factors are built into the program intentionally; others are characteristics that "come with" the school (open classrooms, scheduling) or the child (age, language dominance); and still others may be unanticipated (condition of the books, parental interest in achievement, nutritional status of the child). The model provides for a number of these factors to be considered when the scores are summarized and the data analyzed.

The thrust of the data analysis may be descriptive or inferential depending upon the evaluation questions, the quality and quantity of the data, and the likelihood that the necessary statistical assumptions have been met.

After analysis and interpretation the results and recommendations are provided in detail to the program planners who originally formulated the program goals and objectives. Finally, many decisions about the program are made.

This fairly simple, process-oriented model provided the structure or plan for the 1975-76 program evaluation. The plan is well underway. Initial planning sessions in June resulted in the development of a first set of objectives and plans for their measurement. The placement testing and TOBE/CTBS pretesting have been completed. The model allows an ongoing, flexible plan to be adapted to the continually moving process of education.

III. The Plan for Evaluation

The 1975-76 evaluation plan encompassed the full evaluation model presented above. The plan is coordinated by the bilingual program assistant in charge of the evaluation, assisted by the outside bilingual evaluation consultant, the district's supervisor of evaluation, and the administrative director of research and program development. The program planners have established a number of general goals:

- The expansion of the bilingual multicultural education program will provide for the participation of even more nonEnglish- and limited English-speaking students in the district.
- Achievement levels for nonEnglish and limited English students will increase as a result of the bilingual multicultural education program.
- A bilingual multicultural curriculum (currently Spanish and Portuguese) will become an integral part of the Hayward Unified School District's curricular offerings.
- The Hayward Unified School District will be staffed with a team of trained and experienced bilingual multicultural teachers and instructional aides.
- The Hayward Unified School District will become more aware of its multicultural community.
- Through inservice training and adult education programs, parents of the participants will broaden and increase their knowledge in a variety of subject areas, such as second language acquisition, multicultural awareness, health, nutrition, etc.

The program staff also has defined objectives for each of the four major components. These objectives are now specific and well-suited to quantified evaluation.

A prioritization of objectives has been achieved by emphasizing the evaluation of objectives related to outcomes as they are influenced by the four major program components. This does not mean that other important, more activity-oriented, objectives have been neglected. The program director and his four assistants plan and monitor such objectives using the

master calendar, Gantt charts, time lines, activity flow diagrams, checklists, logs, minutes, and so on. The project proposal presents these more specific objectives and their organization and monitoring plans.

pp. 42- 99	Detailed statement of the classroom instructional objectives for each student
pp. 100-101	Detailed objectives for materials acquisition and development and plans for the Resource Center
pp. 102-106	Detailed objectives for staff development and plans for inservice training, preservice sessions
p. 107	Detailed objectives for parent and community involvement
pp. 174-178; 180-181	Sample of master calendar
p. 179	Sample of timeline
p. 182	Project Management Time Frame 1975-76
p. 183	Block Flow Diagram

In addition, each of the four program assistants has three personal objectives to meet during the school year. Some of these relate to program activities and others to their professional development. These are monitored by the Project Director.

Each of the components and its associated objectives will be discussed in terms of those parts of the model encompassing objectives, instruments, and scores and factors. A time line for instrument administration will be included at the end of each section. Instruments developed by the project staff will be described; and samples of any instruments not included in the present report will appear in the final report.

IV. Program Components

A. Instruction Component

Objectives for the instructional component are of two types: (1) classroom instructional objectives related to daily progress of individual students through the various curricular areas and (2) overall program objectives.

1. Classroom instructional objectives for individual students

Objectives. Each grade level and subject matter area has associated with it multiple objectives related to classroom teaching for each child to meet. For instance, the children in the fourth intermediate level must satisfy this objective for reading, "Given a list of words and a dictionary, the student will be able to identify the dictionary guide words for each word." An objective in the junior high level mathematics instruction specifies that "The student will be able to correctly identify, in both languages, the geometric figures." The classroom objectives for the four subject areas--reading, mathematics, multicultural social studies, and second language learning--had been completed for the elementary grades prior to this year. During the summer, these objectives were reassessed, edited, and divided into two levels of difficulty within each grade and subject area by the program staff. These revised objectives appear in the appendix. The junior high (7th and 8th grades) objectives for bilingual social studies, bilingual mathematics, Spanish as a second language (SSL), English as a second language (ESL), and Spanish as a native language (SNL) were completed this fall by the program assistants and the Winton Junior High School teaching staff. These ten objectives for each grade level (five at each difficulty level) and subject area, representing a sample of the much larger number of active teaching objectives, comprise those we have chosen to monitor for evaluation.

Measurement. A criterion reference test (CRT) measures the child's mastery of each objective--75 percent correct is the criterion for mastery. Sample CRT items appear in the program proposal (pp. 121-142). In general each CRT has five items. CRTs have been developed for reading and mathematics for all elementary grades. Children are given the tests in their dominant language. Any program test development, then, includes the additional tasks of adapting and translating all items into Spanish and Portuguese. Elementary level CRTs for multicultural social studies and second language learning as well as the junior high level CRTs are being written and critiqued by the program staff.

A new system for item critique and submission of new items by the bilingual teachers and aides has been devised. A facsimile of the 4" x 6" cards used for this purpose appears in Figure 2. The technique provides a continuous monitoring and feedback mechanism resulting in updated, targeted tests.

During the summer, the program assistants chose the two best items from each available CRT and compiled them to form a mastery test of twenty items or less for each subject area. These tests were given to each student by the teachers and aides at the appropriate grade level and in his/her dominant language in October.

The fall mastery testing provided a method to place each child at the correct instructional level. Failure to pass an item indicated to the teacher what objectives had yet to be mastered, and she/he is now monitoring the unattained objectives with the appropriate CRTs. The fall mastery test data indicate that, on the average, 48 percent and 49 percent of the items in reading and mathematics, respectively, had been correctly answered. Girls and boys were not significantly different from each other in either subject matter area.

HAYWARD UNIFIED SCHOOL DISTRICT
Elementary Education Department
Bilingual Multicultural Education

C. R. T. ITEM CRITIQUE

Teacher's Name _____ Subject Area _____

Grade Level _____ Objective Number _____

Item Number _____

Critique:

HAYWARD UNIFIED SCHOOL DISTRICT
Elementary Education Department
Bilingual Multicultural Education

C. R. T. ITEM BANK

Teacher's Name _____ Subject Area _____

Grade Level _____ Objective Code _____

Item:

Figure 2. Reduced facsimile of item critique and item bank cards.

Each child will be given the mastery test again at the end of the school year and the gains from the pretest to the posttest will be analyzed to provide information for program evaluation as well as individual student progress. It is expected that 75 percent of the students will meet the objectives at his/her instructional level with at least 75 percent accuracy as measured by the appropriate CRTs.

Table 5 provides information about the number of students in the elementary grades who were tested above, at, or below his/her assigned grade level. The child's teacher made the decision about grade level for mastery testing. Most children are working at their assigned grade level, as expected in a full maintenance program. All but two of the children tested below grade level are from Burbank and Markham Schools.

TABLE 5

Number and Percentage of Students
Taking the Fall Mastery Test
above, at, or below Grade Level

Subject		Above Grade Level	At Grade Level	Below Grade Level
Reading	N	5	503	42
	%	0.9	91.0	8.1
Mathematics	N	4	490	56
	%	0.7	89.0	10.3

Scores. Gain scores from the mastery test in each subject matter area and the number of CRTs passed during the year are the data for the evaluation of the classroom instructional objectives. The time-table for the administration of these measures appears as Table 6.

TABLE 6

Time Table for Measurement

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mastery Tests (Read. Math.)		1							2	
CRTs (Read. Math.)			←	—	—	—	—	→		

1-Placement and Pretest 2-Posttest

Bilingual Management System. In previous years, monitoring of the CRTs was effected by use of the Project Individual Reading and Math Inter District (PIRAMID) Recording System. This was an extremely complicated, detailed, and time-consuming system which did not lend itself to any systematic analysis for program evaluation purposes. The "spirit" of the PIRAMID (finely-tuned monitoring) has been retained, but the "letter" (an overly burdensome detail) has been eliminated in the Bilingual Management System.

The first change involved revising the test procedure such that scoring of the mastery and CRTs could be done by machine. Answer sheets were designed and printed. Kindergarten through second grade children have their answer sheets "bubbled in" by the teacher or aide during the test administration. Third grade and older children are able to use the answer sheets themselves.

Figure 3 is a facsimile of the sheets used for taking the mastery test and CRTs. Each child has a sheet for the mastery. He/she uses the front side for the pretest and the back side for the posttest. On an additional sheet, used throughout the year, the child's responses to each CRT can be marked in the section designated for the objective measured by that CRT. If additional trys are necessary for a particular CRT, another sheet

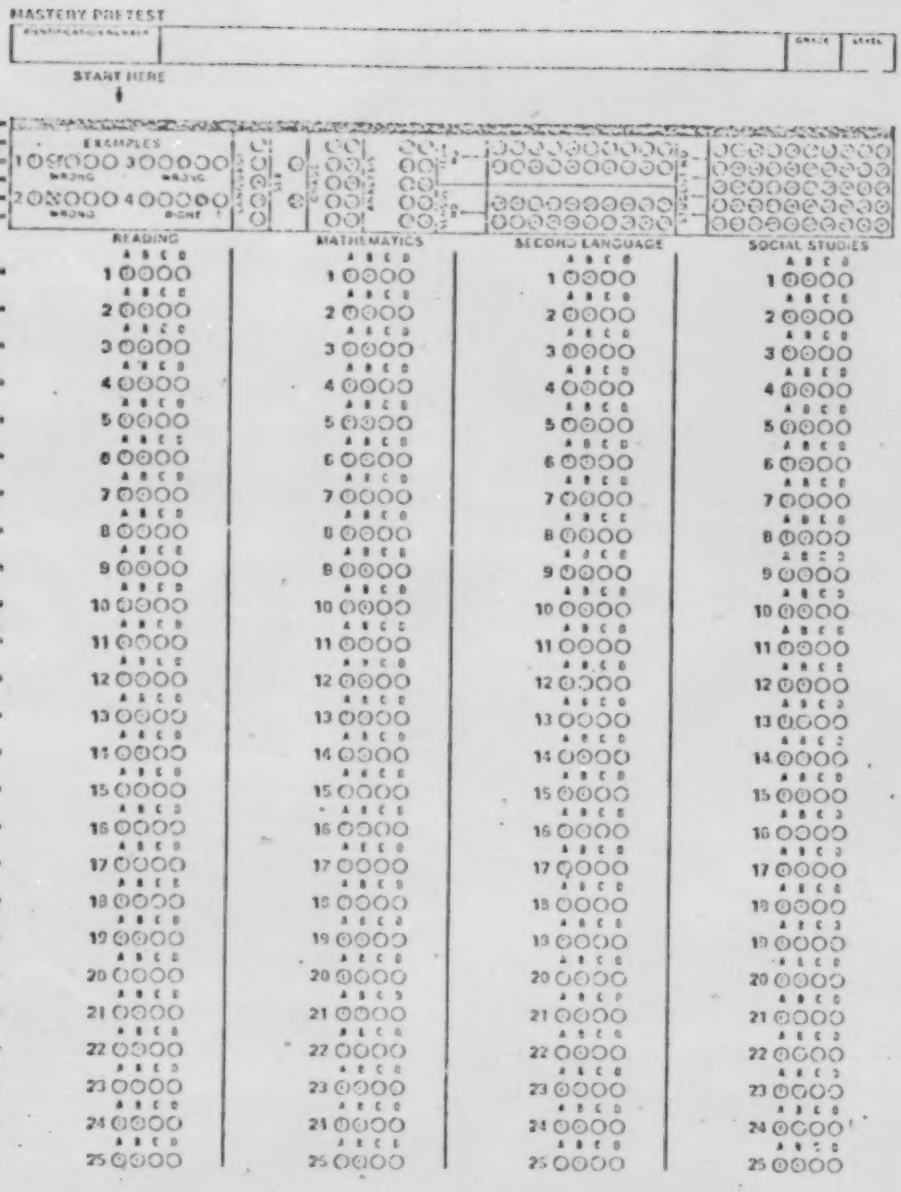

Figure 3A. Reduced facsimile of the response sheet for the mastery test (pretest side only).

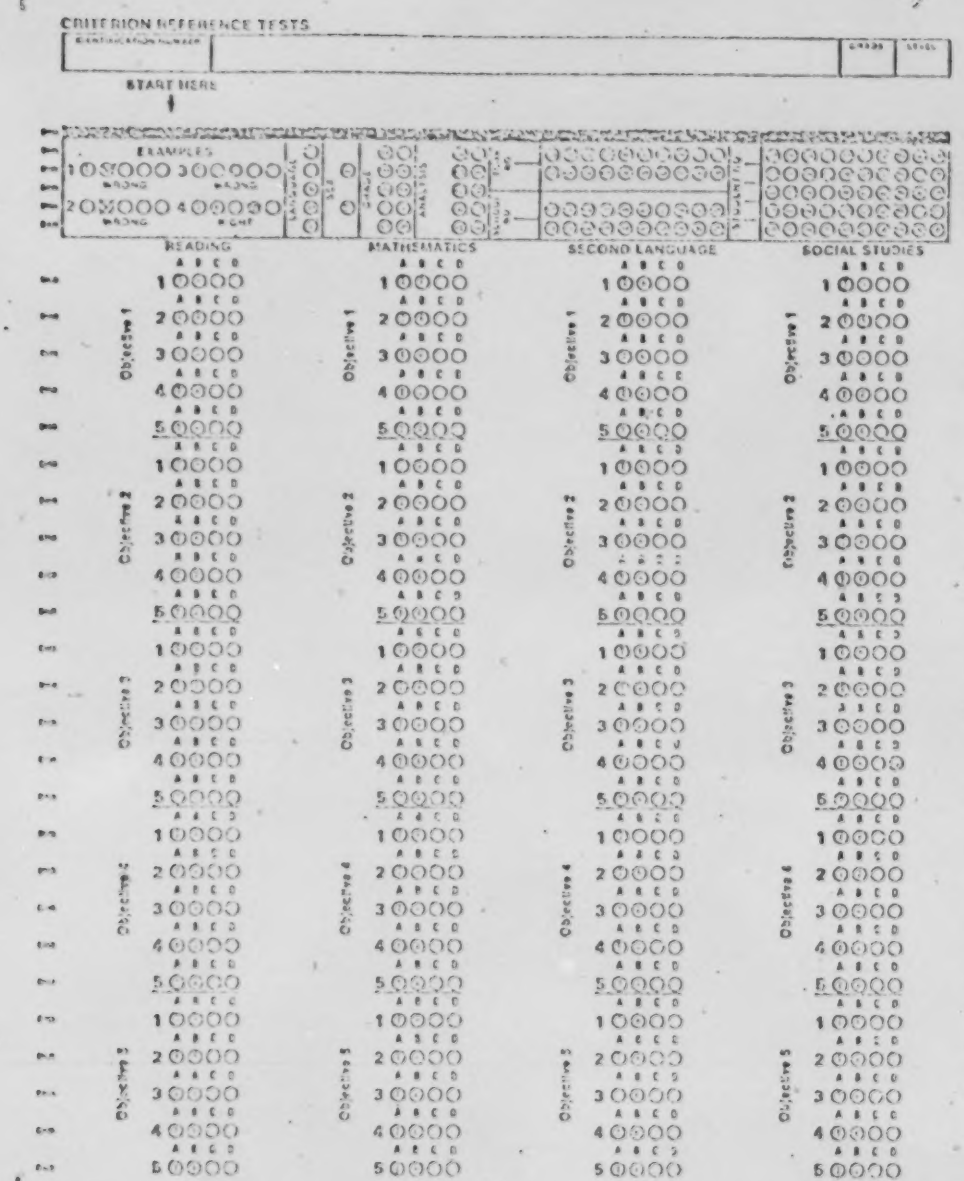

Figure 3B. Reduced facsimile of the response sheet for the criterion reference test (objectives 1-5 side only).

provided. If the child moves to another grade level during the year, again, another sheet is used. Otherwise, each child's record of tests taken during the year is on one sheet. These mastery test and CRT sheets are kept by each teacher in a binder and are "read" by machine periodically throughout the year. Printouts will be provided for each teacher showing [illegible] and progress of each student in his/her class by instructional grade level, subject area, and dominant language.

[illegible] of the programming for machine scoring and the printout of the results for teacher use has been a major undertaking. Despite some delays, the system promises to work well when established and eliminates much of the bookkeeping load the teachers and aides formerly carried. A number of other similar projects, viewing it as a prototype, have expressed interest in this new management system. The introduction of this management system set the stage for an important reassessment and refinement of the classroom instructional objectives.

2. Program Instructional Objectives

The second type of instructional objective relates to program objectives rather than classroom objectives for individual students. In this case, evidence will be sought to show that instructional objectives have been met across all individuals in the program or across individuals who have been grouped by grade, sex, language dominance, for instance. Program Objectives relating to gains in achievement on the norm referenced CTBS and TOBE are also included. Objectives at the elementary and junior high levels do not always overlap. Cases where this is so will be made explicit.

TABLE 7

Mean Standard Scores
Fall CTBS Winton Junior High

CTBS Subtests	Mean Standard Score
Total Reading	467
Total Language	474
Total Math	454
Total Battery	449

Included also will be analyses comparing the scores of students who have been grouped on characteristics and school environment factors such as the following:

SEX: Male, Female

LANGUAGE SPOKEN IN THE HOME: English, Spanish, Portuguese, Bilingual, More than two, Other.

LANGUAGE DOMINANCE: English, Spanish, Portuguese

BILINGUAL STATUS: Monolingual English, Limited English, Bilingual, Limited Second Language, Monolingual Spanish/Portuguese.

NUMBER OF YEARS IN THE PROGRAM: 1, 2, 3, 4, 5

GRADE LEVEL: K, 1, 2, 3, 4, 5, 6, 7, 8.

CLASSROOM: Self-contained, Ungraded

SCHOOL: Bowman, Burbank, Cherryland, Markham, Muir, Sequoia, Winton Jr. High

Values for the above have been determined. The number of children in each language dominance category, based on data from the Bilingual Syntax Measure or the Marysville Language Dominance Index, appears in Table 8.

TABLE 8

Number and Percentage of Children in Each Language Dominance Category

DOMINANT LANGUAGE	N	%
ENGLISH	461	70%
SPANISH	174	27%
PORTUGUESE	21	3%
Totals	656	100

Information about the language spoken in the home is available from the teachers and aides. Table 9 shows the number of children in each category.

TABLE 9

Number and Percentage of Children in Each Language Category

LANGUAGE SPOKEN IN THE HOME	N	%
English	278	42%
Spanish	156	24%
Portuguese	31	5%
Bilingual	185	28%
More than two	3	.3%
Other	5	.7%
Totals	658	100

Bilingual Status, determined by teacher judgment, is shown in Table 10. The number of children in each category is given.

TABLE 10

Number and Percentage of Students in Each Bilingual Status Category

BILINGUAL STATUS	N	%
Monolingual English	161	25%
Limited English	266	41%
Bilingual	107	16%
Limited Second Language	75	11%
Monolingual Spanish/ Portuguese	48	7%
Totals	657	100

The Bilingual Program was motivated and designed primarily for children in the following categories: Limited English, Bilingual, and Monolingual Spanish/Portuguese. These categories comprise 64% of the program participants.

One-way and factorial analyses of variance with planned orthogonal comparisons will be used to ascertain the significance of the differences in means.

OBJECTIVE 1.2. TWENTY MINUTES (GRADES K, 1, 2), THIRTY MINUTES (GRADES 3, 4), AND FORTY MINUTES (GRADES 5, 6) OF STRUCTURED SECOND LANGUAGE LEARNING WILL BE PROVIDED DAILY.

This objective is measured for the elementary grades only. At Winton Junior High, language classes spend the entire class period in language instruction.

Measurement. The degree to which this objective has been met will be measured by use of the Classroom Observation instrument. This instrument has been developed by the project to quantify important activities in the classroom by providing a means of tallying the amount of time spent in each. The Program Assistant for Evaluation uses the observation checklist during the half-hour-long observations she makes five times a year in each classroom. The observations are scheduled by randomly sampling three classrooms from the twenty-six to be observed on a particular observation day. All classrooms are observed once before the cycle begins again. A sample of the Classroom Observation Sheet and the "Explanation of the Code" used appears in reduced size as Figure 4. Every three minutes of the 30-minute observation period the observer checks the appropriate value within each category. These checks are tallied and the mean number of minutes spent in each activity over all five observations for that classroom will be determined.

In addition to the quantitative observations, all Program Assistants will observe the degree to which teachers are providing such instruction whenever they visit the classroom. Teachers lesson plans will be checked.

It is expected that daily structured second language learning will result in a greater number of second language learning objectives being met. Comparisons will be made between students in classrooms where such consistent language instruction can be observed and those where it cannot. An additional analysis will provide information about the differences in number of second language learning objectives met between English-speakers

HAYWARD UNIFIED SCHOOL DISTRICT
State and Federal Programs
Bilingual Multicultural Education

CLASSROOM OBSERVATION SHEET

TIME	GROUPING			LANGUAGE USED			SUBJECT AREA					CURRICULUM MATERIALS									AIDE ACTIVITY					LESSON PLANS
	W	I	S	E	S	P	LA	M	SS	SL	O	B	W	D	M	T	AV	P	Q	O	I	M	D	G	O	L

COMMENTS: _____

Date_____ School_____ Classroom_____

Explanation of Code

GROUPING

W - Whole Class
I - Individual
S - Small Group

LANGUAGE USED

E - English
S - Spanish
P - Portuguese

SUBJECT AREA

LA - Language Arts
M - Mathematics
SS - Social Studies
SL - Second Language
O - Other

CURRICULUM MATERIALS

B - Books
W - Workbook
D - Ditto
M - Manipulative Games
T - Tapes
AV - Audio-Visuals
P - Pencil/Paper
Q - Quizzes, Exams
O - Other

AIDE ACTIVITY

I - Giving Instructions
M - Managing
D - Discipline
G - Grading
O - Other

LESSON PLANS

L - Plans Visible

Figure 4. Reduced facsimile of the Classroom Observation Sheet and the "Explanation of Code"

who are learning a second language and either Spanish or Portuguese-speakers who are learning English. Spanish and Portuguese-speakers who have cultural, social, and oral language support for the learning of English are expected to reach more objectives during the year. The question to be answered by this year's monitoring and analysis will be, "What is a reasonable ratio to expect for this difference?" It is hoped that a practical guideline will emerge.

OBJECTIVE 1.3. INDIVIDUALIZED AND SMALL GROUP INSTRUCTION WILL BE USED AS AN INSTRUCTIONAL STRATEGY IN EVERY CLASSROOM.

Measurement. This objective will be assessed using the appropriate sections of the Classroom Observation instrument and items on an end-of-the-year teacher questionnaire relating to the use of such a strategy.

OBJECTIVE 1.4. BOTH LANGUAGES (EITHER SPANISH-ENGLISH OR PORTUGUESE-ENGLISH) WILL BE HEARD SPOKEN BY THE TEACHER, AIDE, AND/OR STUDENTS THROUGHOUT THE SCHOOL DAY (OR CLASS PERIOD).

Measurement. This objective will be measured quantitatively with the Classroom Observation instrument during the thirty-minute observations by the Program Assistant for Evaluation. In addition, other Program Assistants will monitor this objective during their monthly classroom visits.

OBJECTIVE 1.5. ENGLISH READING AND LANGUAGE MECHANICS SCORES WILL INCREASE BETWEEN OCTOBER AND MAY FOR STUDENTS WITH OTHER LANGUAGE INTERFERENCE (I.E., THOSE WHOSE PARENTS SPEAK PORTUGUESE OR SPANISH ONLY AND THOSE WHOSE PARENTS ARE BILINGUAL).

Measurement. Here the appropriate subtests of the CTBS and the reading and mathematics mastery test gains will be used. Achievement gains over the school year will be determined for all these students as well as for

each subgroup based on language spoken in the home. The important data analysis question of whether there is significant difference in gain between the two categories of students will be considered. Factorial analysis of variance will be performed including other student and school characteristics as well. Factors such as grade level or previous achievement may be critical here.

OBJECTIVE 1.6. STUDENTS WILL SHOW EVIDENCE OF INCREASED ACHIEVEMENT IN BOTH BILINGUAL AND NON-BILINGUAL CLASSROOMS OVER THE SCHOOL YEAR (JR. HIGH OBJECTIVE).

Interest in the bilingual program students at Winton Junior High, of course, is focused on their performance in bilingual classes, but it does not end there. Gains in all classes are expected.

Measurement. This objective will be measured by analysis of the gains in the CTBS subtests appropriate to each class, as well as increases in the student's letter grade over the year and his/her overall g.p.a.

Factors relative to students' language dominance, bilingual status, and so on will be considered in the analysis. Any difference in student gains for the two types of classes will be determined. Students with a greater number of bilingual classes will be compared with those with fewer.

OBJECTIVE 1.7. STUDENTS WILL DEVELOP A DESIRE TO PARTICIPATE IN FUTURE BILINGUAL-MULTICULTURAL CLASSES (JR. HIGH OBJECTIVE).

The value of Bilingual education should be evident to the participant as well as to the program staff and parents. Junior High students make their own choices regarding continued participation in program classes.

Measurement. In the spring, plans are made by each seventh and eighth grader for next year's classes. The number of 7th graders who (1)

volunteer for the bilingual program as 8th graders and (2) volunteer for more than one class in the program will be determined. The number of 8th graders who elect to continue related classes in high school will be assessed.

In addition, attendance records will be analyzed class by class as well as in terms of increase in attendance over the year.

OBJECTIVE 1.8. STUDENTS WILL SEEK INTERACTION WITH PROGRAM TEACHERS AND STAFF BEYOND THE NORMAL CLASSROOM RELATIONSHIP (JR. HIGH OBJECTIVE).

Development of a feeling of trust between student and teacher is an important goal of the program.

Measurement. A log of teacher-student contacts is being kept by the Winton bilingual teachers. Information from these logs will be tallied for each semester of the year. An increase from one semester to another is expected. Any differences in number of contacts from grade seven to eight, one subject matter area to another, male to female, and so on will be described.

Planned Comparison for Instructional Objectives. The evaluation of a program involves consideration of its success by (1) comparing program results with external standards and (2) comparing program results with the internal criteria for meeting localized program objectives. Each of these two comparisons will be discussed.

External validation is often attempted by comparison of the treatment (program) with a carefully defined control group which differs only in that there has been no treatment (program) present. Data from a normed test are used to isolate the treatment (program) effects. A significant difference in favor of the treatment group verifies success of the program. Many people look the other way when the issue of the actual comparability of the

treatment (program) and control group is mentioned, because there are usually insurmountable problems in identifying a non-treatment group which is exactly the same as the treatment group except for participation in the program. But if this traditional model is used, the problematical question of an appropriate control group must be faced. Still, external comparison *is* critical. We must be able to show how the effects of this program compare with the mainstream of public education, as well as assessing the transportability or generalizability of the program. The evaluation model presented here allows multiple approaches to this dilemma. No one treatment-control comparison can be trusted because of the multiplicity of factors involved, therefore, two comparisons relating to external validity will be made. First, the CTBS subtest and total battery gains of the program children will be compared with elementary educational methods in general through the use of grade equivalence scores. If the students in bilingual classes in Hayward are making the same yearly gains in achievement as those of other students throughout the country, while at the same time meeting the objectives of an enrichment program, the evidence for the program's success is certainly positive.

Secondly, the fall-spring gain scores on the CTBS subtests and total battery of children in bilingual classes will be compared with those of children in the same grade and school who are not in bilingual classes. Raw score gains will be used for within-subtest comparisons and standard score gains for comparisons across subtests. Again, if gains are alike and program children, in addition, are meeting the internal objectives, the program can be considered successful from both the external and internal points of view. Within-school and within-district comparisons must be viewed with some reservation, however, because one of the important overall

goals of the bilingual program is to spread the bilingual approach to the whole district. Non-program teachers and aides are encouraged to borrow ideas and techniques from the bilingual program to aid their own non-English-speaking students and provide the multicultural enrichment that is an important part of the program philosophy. Then too, sensitive teachers with the necessary language skills have been meeting the needs of bilingual and Spanish/Portuguese speakers in their classrooms long before "bilingual programs" came into being formally. In addition, the bilingual support staff serve as consultants to non-program teachers. Therefore, rather than looking for a significant difference in scores, we are interested in assuring progress for program students commensurate with that of similar students in a similar educational situation. The Hayward schools which have bilingual classrooms also have other classes where a variety of innovative and/or compensatory state-and federally-funded programs are ongoing. There is a great deal of cross-fertilization and informal comparison going on within these schools.

The bilingual program seeks to include as many bilingual and monolingual Spanish/Portuguese children as possible, given funding and location limitations. Participation is voluntary. The necessary statistical criteria for comparing differences between treatment-control means clearly cannot be met. However, the less stringent comparisons described above can aid validation of the bilingual program as one of full maintenance. Parents, as well as program people, are extremely interested in this question. They want to know whether project children with two languages and less time in one language learn as much as children who have only one language for instruction.

In summary, external validation of success, then, is measured by comparison of gains with data (norms) from standardization groups used in the

development of normed tests given across the United States, and some tentative comparisons with the gains of other classes, schools, and programs within Hayward Unified School District.

Internal validation supplies perhaps the strongest evidence of program effects. Here we seek to answer the question, "Have the program objectives been attained?" The major strategy will be to assess the differences in gains on the TOBE, CTBS, and mastery tests, and the percentage of students meeting criterion on CRTs between and among groups of students. These comparison groups will be derived from data on student characteristics and factors related to school environment. The factors which are relevant to each program objective are discussed within the section dealing with that objective.

Norm-referenced tests as well as the CRTs and Mastery tests will be used to measure specific curriculum content. Both the external and internal program validation techniques, then, are interwoven and extended in the current plan for evaluation.

Timeline. A timeline for instrument administration and/or use and the associated objectives appear as Table 11.

TABLE 11

Timeline for Instrument
Administration-Instruction Component

Obj.	Instrument	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1.1 1.5 1.6 1.7	CTBS or TOBE		X							X	
1.2 1.3 1.4	Observations	<-									->
1.2 1.5	Marysville Lang.Dom.Test	<-	-	-	-	-	-	-	-	-	->
1.2	Teacher/Aide Questionnaire									X	
1.1	Nelson Reading (Jr.Hi Only)					X					
1.8	Attendance (Jr. Hi Only)	<-									->
1.6 1.7	Grade Point Av. (Jr. Hi Only)					2					3
1.8	Preregistration for 1976-1977 (Jr. Hi Only)							X			
1.9	Jr. High Counseling Log	<-									->

1. Placement at entry
2. First Semester Grades
3. Second Semester Grades

HAYWARD UNIFIED SCHOOL DISTRICT

BILINGUAL-MULTICULTURAL EDUCATION PROJECT

Project Evaluation Report

TITLE VII
1976-1977

January 1977

Submitted by:

Merlynn Bergen
Ronald L. Sousa

I. Implementation of the Program

A. Personnel

- total number of staff supported under this program with project funds

  1/4 time Project Director

  3 bilingual program assistants

  2 clerical

  10 full time instructional aide equivalents

B. Scope of Work

- due to declining enrollment we are presently serving 775 students.
- the number of classrooms has been modified due to declining enrollment:

Approved Application	Modifications due to Enrollment
Bowman:	Bowman:
4 classrooms Grades K-6	3 classrooms Grades K-5*
Burbank:	Burbank:
6 classrooms Grades K-6	No change
Cherryland:	Cherryland:
3 classrooms Grades K-4	3 classrooms Grades K-5
Markham:	
4 classrooms Grades K-6	No change
Muir:	Muir:
4 classrooms Grades K-6	No change

Continued

Approved Application	Modifications due to Enrollment
Sequoia:	Sequoia:
3 classrooms Grades K-5	3 classrooms Grades K-6
Winton Jr. High:	Winton Jr. High
Bilingual Social Studies (2 periods)	No change
Bilingual Mathematics (2 periods)	
ESL, 1 period	
SSL, 2 periods	

*

No students were dropped from the program at this school. The anticipated expansion to the sixth grade was above the normal expansion rate for the school site and did not materialize due to declining enrollment.

C. Activities

There have been no changes or new activities undertaken which differ from the approved application.

D. Budget

The following is the Budget revision for this years program. We have received verbal approval from our program officer, Mr. Robert Trifiletti, on January 10, 1977, and are awaiting written approval from Contracts and Grants.

Hayward Unified School District

Allen E. Bushnell
SUPERINTENDENT

Wayne L. Swanson
ADMINISTRATIVE DIRECTOR
RESEARCH AND DEVELOPMENT

Jack M. Winston
ADMINISTRATIVE DIRECTOR
CERTIFICATED PERSONNEL

Eleanor Parker
CLASSIFIED PERSONNEL
DIRECTOR

Darrel A. Foster
COMPENSATORY EDUCATION
DIRECTOR

Ernest P. Cory
BUSINESS MANAGER

Jack C. Thornby
ADMINISTRATIVE DIRECTOR
SECONDARY EDUCATION

Henry J. Nielsen
ADMINISTRATIVE DIRECTOR
ELEMENTARY EDUCATION

Jean M. Charlton
ADMINISTRATIVE DIRECTOR
PUPIL SERVICES

William R. Fox
MAINTENANCE & OPERATIONS
DIRECTOR

January 5, 1977

Mr. Robert Trifiletti
Project Officer
Office of Bilingual Education
U.S. Office of Education
400 Maryland Ave., S.W.
Washington, D.C. 20202

Dear Mr. Trifiletti,

Enclosed as per your request is the cover sheet to form 608T. In addition you requested additional budget justification. Items a, and b under Part III, Section B, indicates a minus difference resulting from the hiring of new instructional aides as opposed to aides who have resigned, who cost more due to seniority.

As a result, we have additional monies to offset increased phone charges on item h of Part III, Section B, and to purchase additional instructional materials reported on item c, of Part III, Section B. As stated in my letter of November 24, 1976, the bilingual instructional materials are sorely needed. Most monies for supplies were eliminated due to budget negotiations on June 8, 1976, with Mr. Holdsworth.

You will recall, during your visit, both staff and parents were concerned about the lack of funds for bilingual instructional materials.

Again, I would greatly appreciate receiving verbal approval prior to your sending your recommendation on to Contracts and Grants.

If you have any questions on the revised budget, please do not hesitate to contact me.

Sincerely,

Ronald L. Sousa
Project Coordinator
Bilingual Multicultural Education
and State and Federal Programs

RLS: ep

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OMB NO. 80-R01

PART III - BUDGET INFORMATION

SECTION A - BUDGET SUMMARY

GRANT PROGRAM, FUNCTION OR ACTIVITY (a)	FEDERAL CATALOG NO. (b)	ESTIMATED UNOBLIGATED FUNDS		NEW OR REVISED BUDGET		
		FEDERAL (c)	NON-FEDERAL (d)	FEDERAL (e)	NON-FEDERAL (f)	TOTAL (g)
1.		$	$	$	$	$
2.						
3.						
4.						
5. TOTALS		$	$	$	$	$

SECTION B - BUDGET CATEGORIES

6. OBJECT CLASS CATEGORIES	GRANT PROGRAM, FUNCTION OR ACTIVITY				6-8-76 TOTAL
	Original Grant (1) (6-8-76)	Revised Budget (2) 11-24-76	Difference (3)	Justification (4)	Bilingual Trainir ship Component
a. PERSONNEL	$ 131,131	$ 129,415	$ -1,716	Beginning aides cost less	$ -0-
b. FRINGE BENEFITS	33,299	30,480	-2,819	Aides with more seniority	-0-
c. TRAVEL	-0-	-0-	-0-	-0-	4,000
d. EQUIPMENT	-0-	-0-	-0-	-0-	-0-
e. SUPPLIES	5,440	9,575	+4,135	Instructional materials sorely needed	-0-
f. CONTRACTUAL	5,000	5,000	-0-	-0-	-0-
g. CONSTRUCTION	-0-	-0-	-0-	-0-	-0-
h. OTHER	800	1,200	+ 400	Telephone charges have increased	22,350
i. TOTAL DIRECT CHARGES	175,670	175,670	-0-		26,350
j. INDIRECT CHARGES	-0-	-0-	-0-		
k. TOTALS	$ 175,670	$ 175,670	$ -0-	$	$ 26,350
l. INCOME	$	$	$	$	$

APPLICATION FOR FEDERAL ASSISTANCE
(NONCONSTRUCTION PROGRAMS)
PART I

O.M.B. NO.

1. STATE CLEARINGHOUSE IDENTIFIER: Grant N/A

2. APPLICANT'S APPLICATION NUMBER: C007507054
PROJECT NUMBER: 403AH5043

3. FEDERAL GRANTOR AGENCY: U.S. Office of Education (Bilingual Education)
ORGANIZATIONAL UNIT: Application Control Center
ADMINISTRATIVE OFFICE: 400 Maryland Avenue, SW
STREET ADDRESS - P.O. BOX: Washington D.C. 20202
CITY STATE ZIP CODE

4. APPLICANT NAME: HAYWARD UNIFIED SCHOOL DISTRICT
DEPARTMENT DIVISION: OFFICE OF BILINGUAL MULTICULTURAL EDUC
STREET ADDRESS - P.O. BOX: P.O. BOX 5000
CITY: HAYWARD COUNTY: ALAMEDA
STATE: CALIFORNIA ZIP CODE: 94540

5. DESCRIPTIVE NAME OF THE PROJECT

6. FEDERAL CATALOG NUMBER: 13.403

7. FEDERAL FUNDING REQUESTED: $202,020
($26,350 of which is earmarked for the Traininghip component)

8. GRANTEE TYPE

_____ STATE, _____ COUNTY, _____ CITY, _X_ OTHER (Specify) Local Educational Agency

9. TYPE OF APPLICATION OR REQUEST

_____ NEW GRANT, _X_ CONTINUATION, _____ SUPPLEMENT, _____ OTHER CHANGES (Specify)

10. TYPE OF ASSISTANCE

_X_ GRANT, _____ LOAN, _____ OTHER (Specify)

11. POPULATION DIRECTLY BENEFITING FROM THE PROJECT: 851

12. CONGRESSIONAL DISTRICT
a. Eighth
b. Ninth

13. LENGTH OF PROJECT: Five years

14. BEGINNING DATE: July 1, 1975

15. DATE OF APPLICATION: Revised November 24, 1976

16. THE APPLICANT CERTIFIES THAT TO THE BEST OF HIS KNOWLEDGE AND BELIEF THE DATA IN THIS APPLICATION ARE TRUE CORRECT, AND THAT HE WILL COMPLY WITH THE ATTACHED ASSURANCES IF HE RECEIVES THE GRANT.

TYPED NAME	TITLE	TELEPHONE NUMBER		
		AREA CODE	NUMBER	EXTE
Wayne L. Sorenson	Administrative Director, Research and Program Development	415	881-2655	

SIGNATURE OF AUTHORIZED REPRESENTATIVE: Wayne L. Sorenson

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REVISED

Hayward Unified School District

Gilbert C. Bushnell
SUPERINTENDENT

Wayne L. Swanson
ADMINISTRATIVE DIRECTOR
RESEARCH AND DEVELOPMENT

Jack M. Weinstein
ADMINISTRATIVE DIRECTOR
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Esmond S. Cary
BUSINESS MANAGER

Jack C. Thralow
ADMINISTRATIVE DIRECTOR
SECONDARY EDUCATION

Henry J. Nicolai
ADMINISTRATIVE DIRECTOR
ELEMENTARY EDUCATION

Jean M. Chambers
ADMINISTRATIVE DIRECTOR
PUPIL SERVICES

William R. Fox
MAINTENANCE & OPERATIONS
DIRECTOR

November 24, 1976

Mr. Robert Trifiletti
Project Officer
Office of Bilingual Education
U.S. Office of Education
400 Maryland Ave., S.W.
Washington, D.C. 20202

Dear Mr. Trifiletti,

Enclosed please find Hayward Unified School District's revised budget on H.E.W. form 608T. As per your request, I have submitted a four column revision; 1) original grant (6-8-76), 2) revised budget (11-24-76), 3) difference, and 4) justification. Column 5 contains the training component which has no revisions at this time.

You will note with pleasure that as a result of hiring new instructional aides replacing aides whom have been in the project for a number of years, we have a savings which can now be channeled into instructional materials. You will recall, during your visit, both staff and parents were concerned about the lack of funds for Bilingual Instructional Materials.

I would greatly appreciate receiving verbal approval prior to your sending your recommendation on to Contracts and Grants.

If you have any questions on the revised budget, please do not hesitate to contact me.

Sincerely,

Ronald L. Sousa
Project Coordinator
Bilingual Multicultural Education
and State and Federal Programs

RLS: cp

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PART II EVALUATION
by
Merlynn Bergen

The bilingual program includes approximately 775 students this year. Four classrooms have been added, primarily to extend the grade levels to provide bilingual education for the continuing students. Table 1 gives information concerning the number of students in each participating school and the makeup of the classrooms.

TABLE 1

Bilingual-Multicultural Classes 1976 - 1977

DOWNEY Span-Eng	BURBANK Span-Eng	CHERRYLAND Span-Eng	MARKHAM Port-Eng	MUIR Span-Eng	SEQUOIA Span-Eng	WINTON JR. HIGH Span-Eng
N=92	N=176	N=89	N=114	N=118	N=96	N=87
Kindergarten and First	Kindergarten	Kindergarten	Kindergarten and First	Kindergarten and First	Kindergarten First and Second	Bilin-Social Studies, 2 Periods
Ungraded Primary Levels 1-2	Ungraded Primary Level 1	Ungraded Primary Levels 1-2	Ungraded Primary Levels 2-3	Ungraded Primary Levels 1-2-3	Ungraded Primary Levels 2-3-4	Biling-Math 2 Periods
Ungraded Primary Levels 3-4-5	Ungraded Primary Levels 2-3	Ungraded * Primary - Int. Levels 2-3-4-5	Ungraded Primary-Int. Levels 3-4	Ungraded Primary Levels 2-3-4	Ungraded* Intermediate Levels 4-5-6	ESL - 1 Per.
	Ungraded Primary Levels 3-4		Ungraded Intermed. Levels 5-6	Ungraded * Intermediate Levels 4-5-6		SSL 1 - 1 Per.
	Ungraded Intermed. Levels 4-5					SSL 2, Span. as a Native Language 1 Period (Combination class)
	Ungraded* Intermediate Levels 5-6					

* These classrooms have been added this year.

The Bilingual Status of the elementary students is shown in Table 2. The number of children in each category is given.

TABLE 2

Number and Percentage of Students in Each Bilingual Status Category (Elementary only)

BILINGUAL STATUS	N	%
Monolingual English	181	26
Limited English	241	35
Bilingual	114	17
Limited Second Language	60	9
Monolingual Spanish/ Portuguese	89	13
Totals	685	100

The Bilingual Program was motivated and designed primarily for children in the following categories: Limited English, Bilingual, and Monolingual Spanish/Portuguese. These categories comprise 65% of the program participants in the elementary grades this year.

The Bilingual Program's four major components - Instruction, Materials Acquisition and Development, Staff Development, and Parent and Community Involvement, will continue to be evaluated using the model introduced last year. This model provides the process and structure for continuous, systematic assessment of the activities and outcomes in each component. The detailed description of the model and the rationale for its use appeared in last year's interim report. This process-oriented model provides the

structure or plan whereby the data obtained throughout the year are closely matched with the objectives of the program.

The evaluation plan is coordinated by the bilingual program assistant in charge of evaluation, assisted by the outside bilingual evaluation consultant, the district supervisor of evaluation, and the administrative director of research and program development. Guided by the general goals set out by the program planners, the program staff has defined objectives for each of the four major components. These remain the same as last year with some minor variations.

1. Instruction Component

The objectives for this component are of two types: a) classroom instructional objectives related to daily progress of individual students through four curricular areas and b) overall program objectives which are related to instruction.

a. Classroom instructional objectives for individual students

Objectives. Each grade level and subject matter area has associated with it multiple objectives related to classroom instruction for each child to meet. The objectives which are being monitored for evaluation appeared in the appendix of last year's report. The elementary grades have objectives for reading, mathematics, second language, and multicultural social studies. In the junior high, objectives for bilingual social studies, bilingual mathematics, Spanish as a second language (ESL), and Spanish as a native language (SNL), are monitored in the appropriate classrooms. These objectives have been chosen to be representative of the much larger

number of active teaching objectives used in the classroom.

Measurement. A criterion reference test (CRT) measures the child's mastery of each objective. It is expected that 75% of the students in each classroom will pass all of the objectives at 80% correct or better, and that the other 25% will pass 50% of the objectives at the 80% criterion. Generally, a CRT for an objective has five items. Children are tested at the appropriate instructional level and language. The CRT's are given throughout the year as the teacher sees that a child is ready. The bilingual Management System, described in great detail in last year's interim and final reports, provides feedback to the teacher on the current standing of every pupil in every subject area three times a year.

Classroom by classroom data from last year's standardized testing, CRT's and mastery testing were made available to the program teachers for their own evaluation purposes. These comparative data are also valuable for the program director and assistants who handle the planning.

In the elementary grades, the two best items from each CRT have been compiled to form a mastery test of twenty items or less in reading, mathematics, and second language for each grade level. These tests are given to each student in his/her dominant language, by the teachers and aides in October and May. October data indicate to the teacher which objectives have yet to be mastered.

Prior to fall mastery testing, the program assistant for evaluation and the evaluation consultant determined the

appropriate level for testing for each child in each subject area based on the data available from the previous year's CRT's and spring mastery tests. Following fall mastery testing, each child's placement was reevaluated and children were moved up to the next level for instruction when they showed better than 80% correct on the fall mastery test. Placement based on previous test data was part of the Bilingual Management System's plan to provide individualized progression through the instructional levels of each monitored subject matter area. Relatively few students, other than those in kindergarten, are receiving instruction in all subjects on the same grade level.

Gains from mastery pre-test to post-test will be determined and comparisons made across years, among languages, grades, and subject areas. Post-test data will be used, along with the proportion of CRT's passed, to determine the instructional level for the following year. Table 3 presents the time-table for the administration of these instruments.

TABLE 3

Time Table for Measurement

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mastery Tests (Read. Math.)		1							2	
CRTs (Read. Math.)		·	<	—	—	—	—	—	>	

1-Placement and Pretest 2-Posttest

b. Program Objectives

The second type of objective in the instruction component relates to program objectives rather than classroom objectives for individual students. In this case, evidence will be sought to show that instructional objectives have been met across all individuals in the program or across individuals who have been grouped in some way: by grade, sex, language dominance, for example. Program objectives relating to gains in achievement on the norm-referenced CTBS, TOBE and Nelson Reading Test are also included.

OBJECTIVE 1.1. STUDENTS IN THE BILINGUAL PROGRAM WILL MAINTAIN A ONE MONTH GAIN FOR ONE MONTH OF INSTRUCTION IN READING, LANGUAGE DEVELOPMENT, AND MATHEMATICS.

Measurement. The Test of Basic Experiences (TOBE) is given fall and spring to all kindergarteners in their dominant language. The Comprehensive Tests of Basic Skills (CTBS-FORM S) at the appropriate levels are given fall and spring to the English dominant, first through sixth graders, and spring only to the Spanish and Portuguese dominant children. At the junior high level, the Nelson Reading Test is given each January. The mathematics sub-test of the CTBS is given fall and spring.

The meeting of this objective, then, will be measured by the pre-post differences in grade level equivalence for program students as well as the spring to spring gains of students who were tested last year. Through the use of

grade equivalence scores, comparison with national elementary and intermediate education can be made. If the students in bilingual classes in Hayward are making yearly gains in achievement which are reasonably close to those of other students throughout the country, while at the same time meeting the objectives of an enrichment program, the evidence for the program's success is positive.

OBJECTIVE 1.2. SPRING-SPRING STANDARD SCALE SCORE GAINS WILL NOT BE SIGNIFICANTLY DIFFERENT FROM THOSE OF NON-BILINGUAL CHILDREN IN THE SAME GRADES AT THE PARTICIPATING SCHOOLS.

The evaluation of a program involves consideration of its success by comparison of program results with external standards as well as the assessment of the program's success in meeting the criteria of the internal program objectives. External validation is usually attempted through comparison of the program (treatment) with a carefully defined control group which differs only in that there has been no program (treatment) present. Data from a normed test are then used to isolate the effects. No such desirable control group exists. The closest we are able to come to a reasonable control group is the group of children in the same grades at the same schools. Most of these children are also participants in some other variety of federal-or-state funded program.

There are children in other district schools who would be eligible for the program if transportation and other problems could be solved. These children would appear to provide a control

group except that they attend schools in neighborhoods very unlike those of the participating schools, where no funds or testing programs are available to provide standardized test data for comparison purposes. Therefore, the comparison described earlier will be used.

Measurement. Gain scores will be derived from standard scale scores for the purpose of measuring this objective. However, some data are presently available comparing the means of the bilingual program students with the overall means on the 1976 fall CTBS testing. These data are presented in Table 4, and are organized by school and grade.

TABLE 4

Mean Standard Scale Scores (CTBS)
of Bilingual Students And All
Students by Grade And School
(Reading Only)

SCHOOL	GRADE 1 LEVEL A		GRADE 2 LEVEL C		GRADE 3 LEVEL 1		GRADE 4 LEVEL 1		GRADE 5 LEVEL 2		GRADE 6 LEVEL 2	
	BIL.	ALL	BIL.	ALL	BIL.	ALL	BIL.	ALL	BIL.	ALL	BIL.	ALL
BOWMAN	181 N=13	189 N=40	286 N=26	291 N=52	253 N=9	332 N=47	322 N=18	363 N=42	149 N=2	410 N=38		
BURBANK	177 N=25	179 N=57	295 N=13	250 N=48	280 N=22	288 N=47	340 N=21	355 N=40	356 N=23	381 N=54	418 N=17	425 N=64
CHERRYLAND	183 N=18	189 N=70	283 N=19	286 N=89	298 N=7	324 N=51	355 N=10	374 N=62				
MARKHAM	202 N=16	198 N=56	291 N=20	287 N=61	378 N=13	349 N=51	402 N=21	383 N=57	372 N=13	420 N=54	420 N=15	469 N=68
MUIR	185 N=20	186 N=67	290 N=19	271 N=69	371 N=7	324 N=50	363 N=10	366 N=46	418 N=8	406 N=49	426 N=4	434 N=47
SEQUOIA	198 N=21		261 N=36		358 N=33			366 N=27		422 N=23		464 N=33

Table 4 data indicate that the bilingual classroom students, in general, are on a par with the total tested population of the school. In twelve (12) of the cases where comparative data are available the standard scores are less than ten (10) units apart; in six (6) cases the bilingual mean is higher; and in nine (9) cases the bilingual mean is lower than the overall average.

Within-school and within-district comparisons must be viewed with some reservation, however, because one of the important overall goals of the bilingual program is to spread the bilingual approach to the whole district. Non-program teachers and aides are encouraged to borrow ideas and techniques from the bilingual program to aid their own non-English speaking students and provide the multicultural enrichment that is an important part of the program philosophy. Then too, sensitive teachers with the necessary language skills have been meeting the needs of bilingual and Spanish/Portuguese speakers in their classrooms long before "bilingual programs" came into being formally. In addition, the bilingual support staff serve as consultants to non-program teachers. Therefore, rather than looking for a significant difference in scores, we are interested in assuring progress for program students commensurate with that of similar students in a similar educational situation.

In summary, external validation of success, then, is measured by comparison of gains with data (norms) from standardization groups used in the development of normed tests given across the United States, and some tentative comparisons with the gains of other classes, schools, and programs within the Hayward Unified School District.

Internal validation supplies perhaps the strongest evidence of program

effects. Here we seek to answer the question, "Have the program objectives been attained?" The major strategy will be to assess the differences in gains on TOBE, CTBS, and mastery tests, and the percentage of students meeting criterion on CRTs between and among groups of students. These comparison groups will be derived from data on student characteristics and factors related to school environment.

OBJECTIVE 1.3. TWENTY MINUTES (GRADES K, 1, 2,) THIRTY MINUTES (GRADES 3, 4,) AND FORTY MINUTES (GRADES 5, 6,) OF STRUCTURED SECOND LANGUAGE LEARNING WILL BE PROVIDED DAILY.

This objective is measured for the elementary grades only. At Winton Junior High, language classes spend the entire class period in language instruction.

Measurement. The degree to which this objective has been met will be measured by use of the Classroom Observation Instrument. This instrument was developed by the project and described in last year's report. It quantifies important activities in the classroom by providing a means of tallying the amount of time spent in each. The Program Assistant for Evaluation uses the observation checklist during the half-hour-long observations she makes five times a year in each classroom. The observations are scheduled using a random sampling technique. All classrooms are observed once before the cycle begins again. In addition, all Program Assistants will observe the degree to which teachers are providing such instruction whenever they visit the classroom. Teachers lesson plans will be checked.

It is expected that daily structured second language learning

will result in a greater number of second language learning objectives being met. An analysis of the CRT data will provide information about the differences in number of second language learning objectives met between English-speakers who are learning a second language and either Spanish or Portuguese-speakers who are learning English. Spanish and Portuguese-speakers who have cultural, social, and oral language support for the learning of English are expected to reach more objectives during the year. The question to be answered by this year's monitoring and analysis will be, "What is a reasonable ratio to expect for this difference?" It is hoped that a practical guideline will emerge.

OBJECTIVE 1.4. INDIVIDUALIZED AND SMALL GROUP INSTRUCTION WILL BE USED AS AN INSTRUCTIONAL STRATEGY IN EVERY CLASSROOM.

Measurement. This objective will be assessed using the appropriate sections of the Classroom Observation Instrument and items on an end-of-the-year teacher questionnaire relating to the use of such a strategy.

OBJECTIVE 1.5. BOTH LANGUAGES (EITHER SPANISH-ENGLISH OR PORTUGUESE-ENGLISH) WILL BE HEARD SPOKEN BY THE TEACHER, AIDE, AND/OR STUDENTS THROUGHOUT THE SCHOOL DAY (OR CLASS PERIOD).

Measurement. This objective will be measured quantitatively with the Classroom Observation Instrument during the thirty-minute observations by the Program Assistant for Evaluation. In addition, other Program Assistants will monitor this objective during their monthly classroom visits.

OBJECTIVE 1.6. ENGLISH READING, LANGUAGE MECHANICS, AND MATHEMATICS SCORES WILL INCREASE BETWEEN OCTOBER AND MAY FOR STUDENTS WITH OTHER LANGUAGE INTERFERENCE (I.E., THOSE WHOSE PARENTS SPEAK PORTUGUESE OR SPANISH ONLY AND THOSE WHOSE PARENTS ARE BILINGUAL.)

Measurement. Here the appropriate subtests of the CTBS and mathematics mastery test gains will be used. Achievement gains over the school year will be determined for all these students as well as for each subgroup based on language spoken in the home. The important question of whether there is significant difference in gain between the two categories of students will be considered.

OBJECTIVE 1.7. STUDENTS WILL SHOW EVIDENCE OF ABOVE AVERAGE ACHIEVEMENT IN BOTH BILINGUAL AND NON-BILINGUAL CLASSROOMS AT THE END OF THE FIFTH GRADING PERIOD. (JR. HIGH OBJECTIVE)

Interest in the bilingual program students at Winton Jr. High, of course, is focused on their performance in bilingual classes, but it does not end there. Gains in all classes are expected.

Measurement. This objective will be measured by the student's letter grade in April and his/her overall g.p.a.

Factors relative to students' language dominance, bilingual status, and so on will be considered in the analysis. Students with a greater number of bilingual classes will be compared with those with fewer.

OBJECTIVE 1.8. STUDENTS WILL SHOW EVIDENCE OF HIGH ATTENDANCE THROUGHOUT THE YEAR. (JR. HIGH OBJECTIVE)

Students register interest at the Junior High Level by their attendance at classes.

Measurement. The months of October and April will be used to measure fall and spring attendance. Student factors such as grade, language dominance, and number of bilingual classes will be used for comparative analysis.

Timeline. A timeline for instrument administration and/or associated objectives appear as Table 5.

TABLE 5

Timeline for Instrument Administration-Instruction Component

Obj.	Instrument	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1.1 1.2 1.6	CTBS or TOBE		X							X	
1.3 1.4 1.5	Observations	<-									->
1.3 1.4	Teacher/Aide Questionnaire									X	
1.1 1.2	Nelson Reading (Jr.Hi Only)					X					
1.8	Attendance (Jr. Hi Only)	<-									->
1.7	Grade Point Av. (Jr. Hi Only)								X		

2. Materials Acquisition and Development Component

Many of the purchased bilingual materials are housed at the Bilingual Resource Center at Sequoia School. The center is staffed with a half-time resource center clerk. Program teachers and aides may check out materials for classroom use. The extent of this use is an important question.

Development of bilingual materials where they are needed is a continuing program activity. Tests, questionnaires, meeting agendas, and so on, must be provided in English, Spanish, and Portuguese. In the classrooms, materials developed by teachers and program assistants are important to the curriculum. Portuguese language materials, especially, are not readily available and must be "instantly" developed for daily classroom use.

OBJECTIVE 2.1. A SYSTEMATIC MONITORING OF THE USE OF MATERIALS PURCHASED THROUGH BILINGUAL FUNDS WILL SHOW THAT THEY ARE BEING USED ON A REGULAR BASIS BY ALL PROGRAM TEACHERS AND AIDES.

Measurement. The attainment of this objective will be measured by summarizing data from records kept by the Bilingual Resource Center aide of what resource materials each teacher and aide checks out during the year. Use of materials that are normally kept in the classroom will be assessed by the program assistants who will fill out a checklist (see last year's report) documenting the use of Spanish and Portuguese language materials whenever classroom observations or visits are made.

OBJECTIVE 2.2 A VARIETY OF TYPES OF MATERIAL WILL BE IN USE IN THE CLASSROOMS THROUGHOUT THE SCHOOL DAY (OR CLASS PERIOD).

Measurement. This objective will be measured with data from appropriate items appearing on the Classroom Observation Sheet. Tallies of the amount of time that books, workbooks, dittos, manipulative games, tapes, audio-visuals, pencil/paper, and quizzes/exams are in use will be made from the completed observations made by the Program Assistant for Evaluation.

Timeline. A timeline for instrument administration and/or use and the associated objectives appear as Table 6

TABLE 6

Timeline for Instrument Administration Materials Component

Obj.	Instrument	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2.2	Classroom Observation Sheet	<-									->
2.1	Materials Checklist	<-									->
2.2	Classroom Observation Log	<-									->
2.1	Resource Center Check-out Data	<-									->

3. Staff Development Component

The program is committed to staff development. Monthly staff in-service meetings are provided.

OBJECTIVE 3.1. HIGH ATTENDANCE AT MONTHLY STAFF MEETINGS AND INSERVICE PROVIDING INFORMATION AND/OR IDEAS FOR USE IN THE CLASSROOM.

Measurement. This objective is being assessed each month by keeping attendance records at staff and inservice meetings. Evaluative questionnaires are also used at each inservice meeting.

OBJECTIVE 3.2 TO MAKE AVAILABLE CONTINUING EDUCATION OF STAFF LEADING TO DEGREES AND CREDENTIALS THROUGH ESEA TITLE VII TRAININGSHIPS.

Trainingships were made available to all program personnel.

Measurement. The meeting of this objective can be measured by the number of people successfully enrolled in the program. The number and description of staff in training and the location of their programs appear in Table 7.

TABLE 7

Program Staff
Currently In
Training

Degree/ Credential	Location	N	Program Staff
BA	Cal State Hayward	4 *	Aides
MA/MS	Cal State Hayward SJSU	7	4 Teachers 3 Program Assts.
Ed.D	Nova University	1	Program Director
Total		12	

*One of these Aides is being funded under California State AB 2817.

Three of the teachers in the program this year are former instructional aides who finished their credential programs last year under the Trainingship program.

OBJECTIVE 3.3. GIVEN AVAILABLE FUNDS, AN EFFORT WILL BE MADE TO INVOLVE A LARGE PERCENTAGE OF THE CERTIFIED AND CLASSIFIED STAFF IN OFF-SITE STAFF DEVELOPMENT OTHER THAN I.H.E. (INSTITUTIONS OF HIGHER EDUCATION) ATTENDANCE.

Measurement. This objective will be measured by ascertaining the number and description of attendees at off-site meetings.

Timeline. A timeline for instrument administration and/or use and the associated objectives appear as Table 8.

TABLE 8

Timeline for Instrument Administration Staff Development Component

Obj.	Instrument	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
3.1	Inservice Attendance	<									>
3.1	Inservice Questionnaires	<									>

OBJECTIVE 4.1. PROVISION OF A PROGRAM OF COMMUNICATION WILL ENABLE PARENTS OF PARTICIPANTS TO ACQUIRE UNDERSTANDING OF AND SUPPORT FOR THE BILINGUAL PROGRAM.

Measurement of this objective includes a parent questionnaire to assess parental attitudes toward the bilingual program and determine what the parents have learned about it.

OBJECTIVE 4.2. TO HAVE BILINGUAL PROGRAM STAFF PARTICIPATE WHENEVER POSSIBLE IN COMMUNITY MEETINGS WHICH RELATE TO BILINGUAL EDUCATION.

Program staff time is limited for the meeting of this objective, but the Program Assistant for Curriculum Development has been attending community meetings, sponsored by the Luso-American Education Foundation, for furthering Portuguese/English Bilingual Education in public schools and Portuguese Bilingual classes at Cal-State, Hayward.

In addition, the Project Director and Program Assistants are members of the Cal-State University (Hayward) Bilingual Program Advisory Board, the purpose of which is to further communications between the LEAs and the IHEs.

Meetings regarding closure of schools have been held in homes within the community this fall so that parents can gather in small groups to meet with district personnel to discuss the matter.

Non-English speaking Portuguese parents met on December 9, 1976. Hollis Baker, school principal, gave information which was translated for attending parents by a Portuguese bilingual teacher, and a program assistant who were in attendance. Many questions were raised that

would have gone unanswered at a regular informational meeting.

Timeline. A timeline for instrument administration and/or use and the associated objectives appear as Table 9.

TABLE 9

Timeline for Instrument
Administration Parent/Community Component

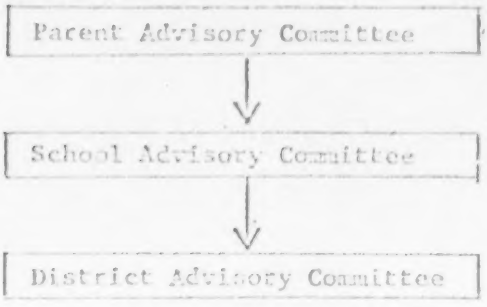
Obj.	Instrument	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
4.1	Parent Questionnaire									X	

4. Parent and Community Involvement Component

Parents are involved in many ways - - as classroom visitors and volunteers aides, as advisory committee members, as meeting or conference attendees, as activities participants, and so on.

The district has maintained a District Advisory Committee on Bilingual-Multicultural Education since 1970, commencing a year and a half prior to the inception of the pilot project funded under ESEA Title I. The advisory Committee has consisted of parent representatives from each bilingual classroom, representatives from community organizations, and bilingual project staff. This year's Advisory Committee is composed of project parents only.

The structure of the District Advisory Committee has been the following:



Each bilingual classroom has a Parent Advisory Committee composed of parents.

Each school has a School Advisory Committee composed of a representative from each classroom.

Each school sends a representative to serve on the District Advisory Committee for Bilingual Multicultural Education.

Parents have monthly meetings at each school as well as quarterly District Advisory meetings.

SUMMARY

The program is continuing this year as it was proposed. Last year's final report provided ample evidence that the program objectives are being carefully monitored and, in the main, have been met.

The use of last year's test data to make placement decisions has been more successful than might have been expected the first time. Relatively few changes needed to be made, and these were handled by teachers and program assistants working together.

Teachers and program administrators are provided with data throughout the year so that adjustment and evaluation of the program are possible. Data are described at many levels -- individual, language group, grade, classroom, school and overall program - so that the assessment needs of all personnel can be met.

EVALUATION

The Bilingual Management System described in detail in the 1976 Interim and Final Report and referred to in the 1977 Evaluation Report (See appendix II) has been operative and functioning in each bilingual classroom in the district.

The Bilingual Management System consists of:

- Kindergarten through sixth grade student performance objectives in Language Arts- Reading, Mathematics, Second Language Learning and Multicultural Social Studies.
- Kindergarten through sixth grade Criterion Reference Test's in English, Spanish and/or Portuguese in: Language Arts - Reading, Mathematics, Second Language Learning and Multicultural Social Studies.
- Kindergarten through sixth grade Pre-post Mastery Tests in English, Spanish and/or Portuguese in Language Arts - Reading, Mathematics, Second Language Learning and Multicultural Social Studies.
- Specially designed answer sheets which serve as a monitoring device for individual student progress.

This model for evaluation provides the process and structure for continuous, systematic assessment of the activities and outcomes in each component.

The comprehensive Interim Evaluation Report presents a complete description of the evaluation design. Included are provisions for planned comparisons and reporting of pre and post test results in reading for the participating and non-participating students. A description of instruments of measurement to be used in evaluating the performance of participants in the program can also be found therein.

APPENDIX III

pp.	7 - 11	Detailed evaluation design
pp.	12 - 28	Detailed description of instrument of measurement
pp.	28 - 32	Planned comparisons and reporting of pre and post test results

March 23, 1977

TO: Ron Sousa

FROM: Merlynn Bergen - Outside Evaluator

SUBJECT: Progress Report on the Bilingual Management System

As we complete our second year using the Bilingual Management System, I'd like to report to you on the progress we have made. The system in operation this year provides a comprehensive means of bilingual program evaluation within two phases. The first is the data collection and teacher information phase. Phase two, is the data bank providing information for longitudinal studies. I'll concentrate here primarily on phase one. This phase provides monitoring of instructional objectives in four subject areas: reading, mathematics, second language acquisition and social studies. Criterion reference tests are used to test for mastery of the objectives at every grade level, mastery tests provide placement information. The major advantage of the system is that it provides a means of keeping track of each student's progress throughout the year and reporting this information to teachers on cumputer printouts. The disadvantages are related to the complexity of the program and the amount of individual variability. That is, most of our classrooms have two or three grade levels, students who are receiving instruction at different grade levels in different subject areas, and, of course, students being tested in one of two languages. Printouts are designed (primarily due to constraints on money available for printing the computer sheets

and programming for output) to print data for a specific language, grade level, and subject area on separate sheets. For some teachers this has meant a great number of sheets to shuffle through to keep track of a student's progress. This problem is being worked on at meetings with teachers and staff. The advantage of having one place to record all criterion reference test taking is an obvious one. If the record of objectives met could be provided at the same location, we would have a more efficient system, given our complex situation.

The technical and mechanical problems have been solved, and the system as it stands now would be ideal for any program where there are one-grade classrooms and children fairly consistently operating at grade level, or at least, at the same level across subject areas.

The Bilingual Management System was reviewed by Mr. David Dolson, a state department consultant for bilingual education during a recent state monitor and review visit to one of the bilingual schools. His commendation of the system follows.

ALAMEDA County | HAYWARD District | PALMA VISTA School

California State Department of Education
Elementary Education Division

PROGRAM QUALITY REVIEW INSTRUMENT - 1976/77

COMMENDATIONS:

* A. Development and use bilingual management system.
B. Totally staffed by bilingual teachers and aides as Spanish/English models.
C. Commitment of program staff to the implementation of the bilingual program.

RECOMMENDATIONS:

A. Continue development of second language acquisition strategies.
B. Continue development in staff and curriculum development of bilingual teaching strategies and methodologies
C. Greater involvement of LES/NES parents.
D. Further develop the ability of staff members to use primary language in curriculum areas.
E. Promote and increase understanding of the bilingual program among parents and community.
F. Update staff and community regarding current bilingual education issues.

NAME: [signature] DATE: 11/10/76

[signature]

G. Refine criteria for English lang. use of among LES/NES students.

OFFICE OF THE LOS ANGELES COUNTY SUPERINTENDENT OF SCHOOLS

RICHARD M. CLOWES, *Superintendent*

January 12, 1977

RECEIVED
JAN 17 1976
BILINGUAL-MULTICULTURAL
EDUCATION

Mr. Ronald Sousa
Hayward Unified School District
305 Elmhurst Street
Post Office Box 5000
Hayward, California 94544

Dear Ron:

Congratulations to you and all those responsible for the Bilingual Management System.

At a time when all of education is at a crossroads and specifically bilingual education, avenues in search for excellence via the "accountability" emphasis are foremost. Your Management System certainly addresses itself to the stringent evidence required in validating progess which in turn has generated a milieu of record-keeping tasks. The Hayward Unified School District's Bilingual Management System might well be "the" alternative if not the answer.

A strong factor lending to the System's potentiality, is the representative staff involvement during the development and implementation stages. It is this element that I personally feel gives strength to the effectiveness of the System.

As president of the California Association for Bilingual Education, I would appreciate your permission in allowing us to feature the Management System in one of our next newsletters so that other districts could profit from your efforts.

Best wishes for continued successes.

Sinceramente,

Chuck

Chuck Acosta, Consultant
Bilingual Bicultural/ESL

CA:mh

LOS ANGELES COUNTY EDUCATION CENTER • (213) 922-6111
9300 EAST IMPERIAL HIGHWAY • DOWNEY, CALIFORNIA 90242

HAYWARD UNIFIED SCHOOL DISTRICT

HAYWARD, CALIFORNIA

INTER-OFFICE COMMUNICATION

TO: Ron Sousa

DATE: December 3, 1976

FROM: John Moseley, Supervisor of Evaluation
State and Federal Programs

SUBJECT: Bilingual Management System

I have examined the Bilingual Management System materials which you have developed and would like to take this opportunity to compliment you and your staff on what I consider an excellent job. In my judgement it offers a truly viable means of monitoring pupil progress in the various areas covered by your program.

The CRTs appear to be well planned and pertinent. I'm especially impressed with the means you designed for teacher feedback and suggestions through use of item critique and data bank cards. This should provide continual internal improvement.

Your utilization of data processing capabilities will provide for the required uniformity of data collection and display. Even more importantly, it should reduce much of the time teaching staff are required to spend on record keeping, thereby avoiding what has frequently proven to be the single most deleterious aspect of learning-management system implementation. It also allows for manageable collection of longitudinal-type data which, especially in this type of program, is of paramount importance.

This system has many features which could well be utilized by the entire section of our district currently endeavoring to implement learning-management systems.

RECEIVED
DEC 6 - 1976
BILINGUAL-MULTICULTURAL
EDUCATION

JM:lc

CC: Dan A. Foster
Wayne L. Sorenson

National Assessment and Dissemination Center for Bilingual-Bicultural Education
ESEA, Title VII
385 High Street
Fall River, Massachusetts 02720
John R. Correiro, Director

RECEIVED
MAR 7 1976
BILINGUAL-MULTICULTURAL EDUCATION

February 25, 1977

Mr. Ronald L. Sousa
Project Coordinator
Bilingual Multicultural Education
and State and Federal Programs
Hayward Unified School District
24411 Amador Street
Hayward, CA. (P.O. Box 5000) 94540

Dear Ron:

The materials you left recently are quite impressive. The concept of the Bilingual Management System is not only quite sound but obviously quite necessary.

George DeGeorge, as you know is reviewing the material now and I will forward his comments to you, when they are complete.

In any case we will be most happy to disseminate your materials through the National Network. In a few weeks, we will get back to you with proposals for format for your consideration.

Sincerely,

John R. Correiro
Director

JRC: cr

Acknowledgements

The author wishes to acknowledge his patient, understanding and loving wife, Marge Sousa, without whose persistent encouragement and invaluable assistance, the completion of the doctoral program and this practicum would have been impossible.

Additionally, the author wishes to thank his dedicated and hardworking staff, especially Marie Troiano, Alda Brothers, and Flora Lofgren for their leadership and involvement in the development of the Bilingual Management System. Merlynn Bergen, the program outside evaluator is to be credited for her invaluable assistance in developing the structure for data analysis collection. Dr. Dan Foster, the authors supervisor, for being so supportive, and allowing for flexibility in the work schedule. His critique and comments greatly shaped this report.

Last but certainly not least, Edda Pazin, this authors devoted secretary. Without her diligent efforts and her undying patience, this practicum report would not have been completed.

Thank you all!

This practicum report is dedicated
to: Marina and Ronda,
with love, Dad

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B.A.B.E.L.
Bay Area Bilingual
Education League

B.A.S.T.A.
Bilingual Alternatives for
Secondary Teachers & Aides

March 15, 1977

RECEIVED
MAR 21 1976
BILINGUAL-MULTICULTURAL
EDUCATION

Mr. Ron Sousa
Bilingual Program Director
Hayward Unified School District
P.O. Box 5000
Hayward, CA 94540

Dear Ron:

After reviewing your Bilingual Management System for the Hayward Unified School District, I am happy to endorse such an excellent endeavor and praise you for having compiled this much needed product. On behalf of the Bay Area Bilingual Education League (BABEL), we want to compliment you and endorse the Hayward Unified School District Bilingual Management System you have designed. Hopefully, it will soon be available for distribution so that projects throughout the United States will have some type of comprehensive tool to assess their bilingual programs.

I am sure that as programs utilize this system, it will continue to be modified and adapted to the specific needs of different regions in the United States. I can assure you that after this process, this system will continue to be one of the outstanding contributions to bilingual education in this country.

Congratulations on the fine work!

Sincerely,

B. Roberto Cruz, Ph.D.
Director, BABEL Programs

BRC:rc

2168 Shattuck Avenue Berkeley, CA. 94704 (415) 549-1820

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